

# U.S. Government Open Innovation Summit

June 14, 2019



**#PublicInnovation**  
**#Crowdsourcing**

# Agenda

**8:30 - 9:10 a.m.** - *Registration*

**9:10 - 9:15 a.m.** - *Welcome*

- William “Jay” Huie - Assistant Commissioner, Office of Products and Programs (GSA)

**9:15 - 9:30 a.m.** - *Opening Remarks*

- Dr. Kelvin Droegemeier - Director of the White House Office of Science and Technology Policy

**9:30 a.m.** - *A Primer on Open Innovation in Government*

- Jarah Meador (GSA) - Federal Prize Competitions: Crowdsourcing Innovation
- John McLaughlin (GSA & NOAA) - Citizen Science: Accelerating Innovation Through Public Participation
- Jennifer Shieh (OSTP) - Highlights of the Implementation of Federal Prize and Citizen Science Authority, Fiscal Years 2017-2019

**10:00 a.m.** - *Examples of Impact Through Crowdsourcing*

- Marc Kuchner (NASA) - NASA’s Citizen Scientists
- Ellen Ryan (NIST) - NIST Public Safety Communications (PSCR): Prize Challenges
- Sophia B. Liu (USGS) - Leveraging Social Media and Digital Volunteers to Inform Hazard Science and Emergency Management

**10:40 - 11:00 a.m.** - *Break*

**11:00 - 11:45 a.m.** - *Panel Discussion: Innovation and the Power of Public Engagement*

- Jenn Gustetic (NASA), moderator
- Caren Cooper, Ph.D. (N.C. State University)
- Therese Griebel (NASA)
- Alexis Bonnell (USAID)

**11:45 a.m. - 1:00 p.m.** - *Break*

**1:00 - 1:50 p.m.** - *Concurrent Sessions*

- *Agency Innovation Showcase (Atrium)*
- *Breakouts: How U.S. Agencies Use Open Innovation*
  - *Session A: Disaster Resilience*
  - *Session B: Catalyzing Health*
  - *Session C: The Future of Work*

**1:50 - 2:00 p.m.** - *Break*

**2:00 - 2:45 p.m.** - *Transformational Partnership and Engagement Models*

- Drew Zachary (U.S. Census Bureau): Crowdsourcing Digital Solutions Through Tech Partnerships: The Opportunity Project
- Lauren Algee (Library of Congress): Creating an Innovation Culture at the Library of Congress
- Ku McMahan (USAID): Accelerating Innovation: Securing Water for Food Grand Challenge Model

**2:45 - 3:00 p.m.** - *Concluding Remarks*

**3:00 - 4:00 p.m.** - *Open Networking*

# Welcome

## William “Jay” Huie

Assistant Commissioner  
Office of Products and  
Programs, General Services  
Administration

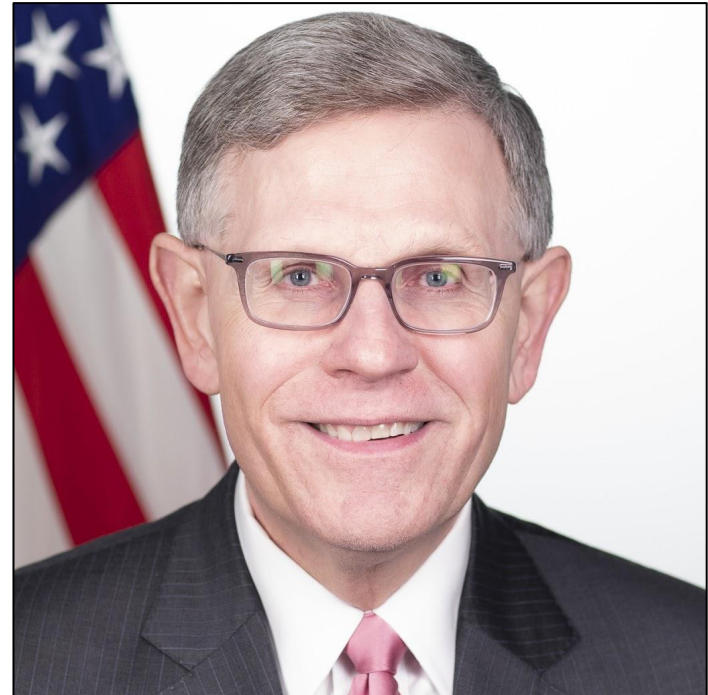


# Keynote

**Kelvin Droegemeier,  
Ph.D.**

Director

White House Office of  
Science and Technology  
Policy



# Federal Prize Competitions: Crowdsourcing for Innovation

**Jarah Meador, Ph.D.**

Director of Challenge.gov  
and CitizenScience.gov

Office of Products and  
Programs, General Services  
Administration



Federal Prize Authority  
has been in place  
**Since the year**  
**2010**

Almost **1,000**  
prize  
competitions  
launched



**> 100** Federal  
agencies have  
participated

Over **\$250M**  
offered in prizes  
and other  
incentives



## Federal Prize Authority

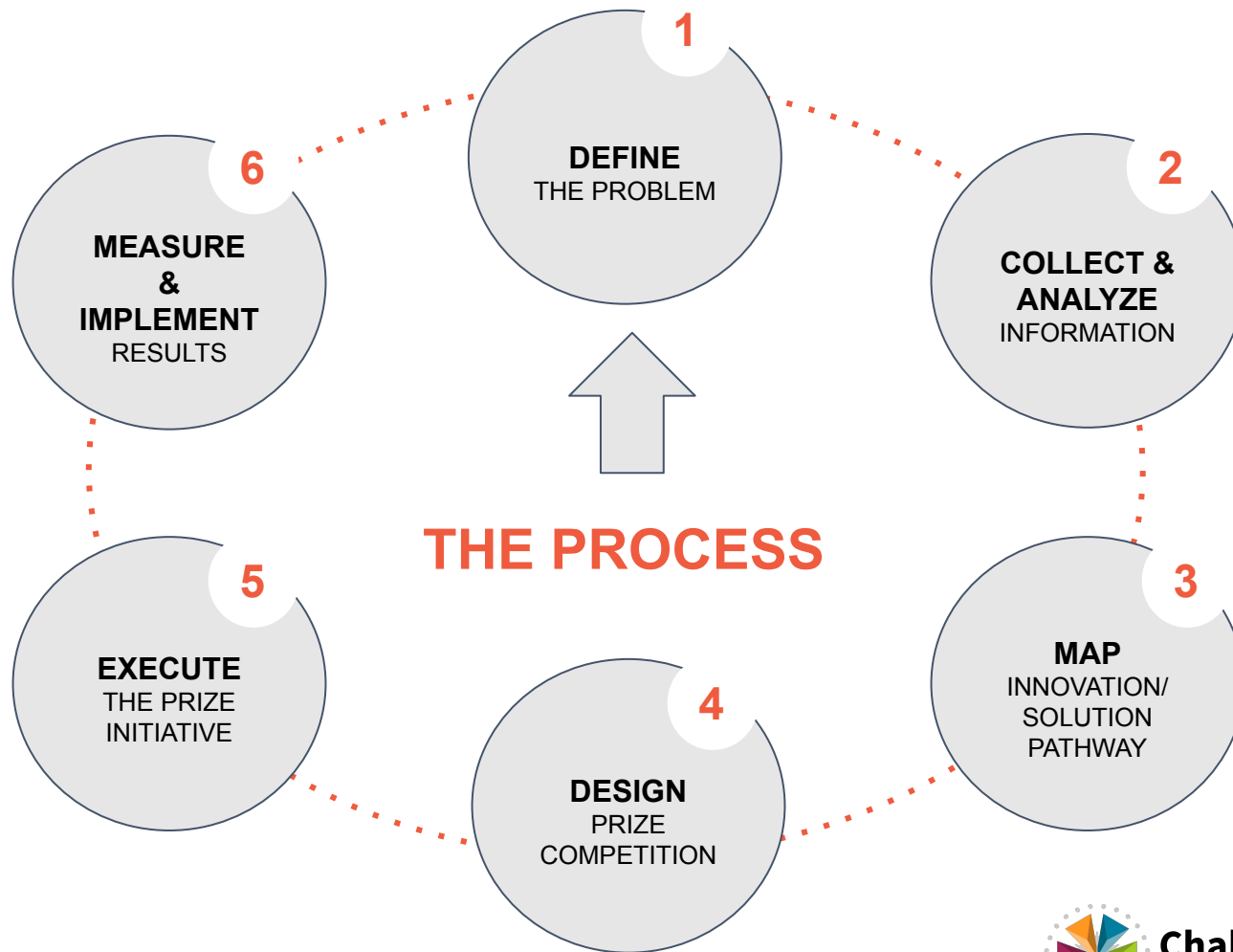
- *2010 - America COMPETES Reauthorization Act (P.L. 111-358)*
- *2017 - American Innovation and Competitiveness Act (P.L. 114-329)*

## Benefits of Prize Competitions

- *Pay for the best results*
- *Save time and resources*
- *Engage innovators with diverse skill sets*
- *Create opportunity for public-private partnerships*



# Open Innovation & Prize Competitions



# PRIZE TYPES



***Analytics***



***Entrepreneurship***



***Ideas***



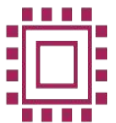
***Design***



***Scientific***



***Software***



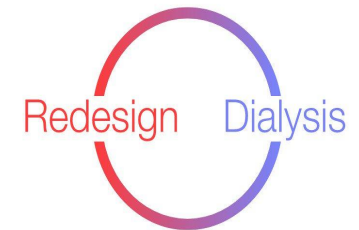
***Technology***

# EXAMPLES

## The Opioid Detection Challenge (DHS)



## KidneyX (HHS)



## Artists Inspiring Astronauts Challenge (NASA)



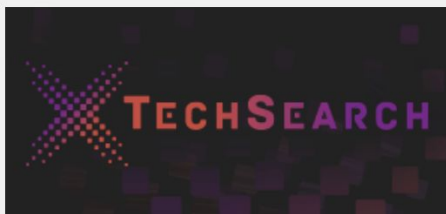
## Veterans Online Memorial Challenge (VA)



**Challenge.gov**  
Government Challenges, Your Solutions

## Challenge.gov

Here, members of the public compete to help the U.S. government solve problems big and small. Browse through challenges and submit your ideas for a chance to win.



Department of Defense - U.S. Army

### ARMY XTECHSEARCH 3.0

xTechSearch will highlight opportunities for small businesses to collaborate with the Army to tackle the most critical Army modernization challenges...

**Open Until:** 06/13/2019 02:59 AM ET

[View Details](#)



Department of Health and Human Services -  
Centers for Medicare and Medicaid Services

### CMS AI HEALTH OUTCOMES CHALLENGE

Accelerate the future of health care with AI

**Open Until:** 06/18/2019 05:00 PM ET

[View External Challenge Details](#)

## Customer Experience Hackathon 2019

A day focused on designing a  
better customer experience with  
and within government

 Sponsored by The General Services Administration

General Services Administration

### GSA HACKATHON 2019

A day focused on designing a better customer  
experience with and within government.

**Open Until:** 06/19/2019 05:00 PM ET

[View Details](#)



# *Thank You!*

## Contact Us!



team@challenge.gov



@challengegov



Facebook.com/challengegov

And join our listserv: [challenges@listserv.gsa.gov](mailto:challenges@listserv.gsa.gov)

# **Citizen Science: Accelerating Innovation Through Public Participation**

**John McLaughlin**

Program Manager,  
CitizenScience.gov

Office of Products and  
Programs, General Services  
Administration



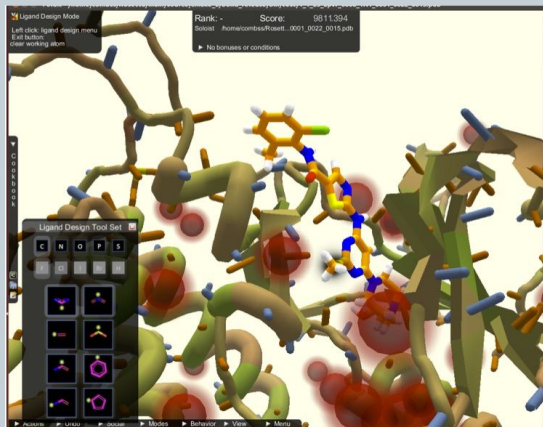
# Citizen Science:

*accelerating innovation through public participation*



**JOHN MCLAUGHLIN**  
CitizenScience.gov Program Manager

June 14, 2019



# Definitions

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## **Citizen Science**

*a form of open collaboration in which individuals or organizations participate voluntarily in the scientific process in various ways, including— (A) enabling the formulation of research questions; (B) creating and refining project design; (C) conducting scientific experiments; (D) collecting and analyzing data; (E) interpreting the results of data; (F) developing technologies and applications; (G) making discoveries; and (H) solving problems.*

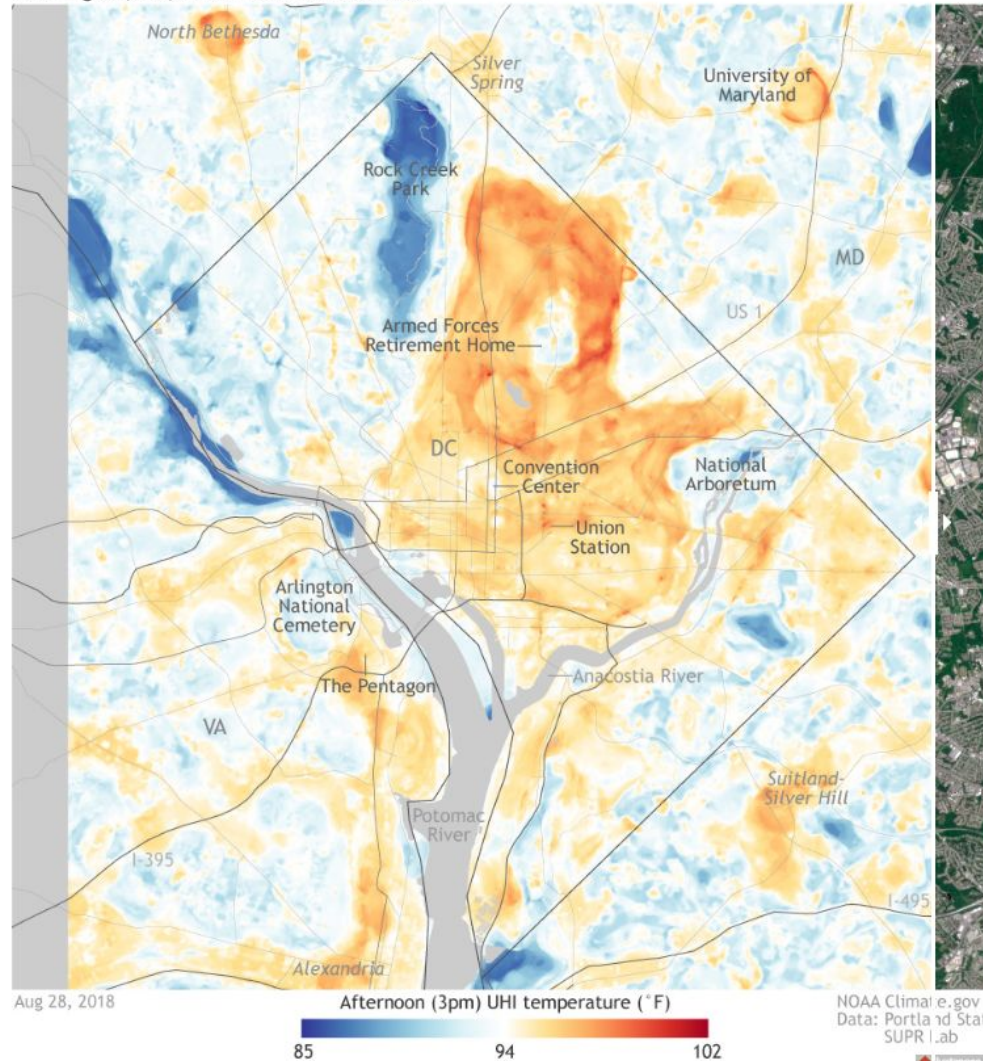
## **Crowdsourcing**

*a method to obtain needed services, ideas, or content by soliciting voluntary contributions from a group of individuals or organizations, especially from an online community.*

# Urban Heat

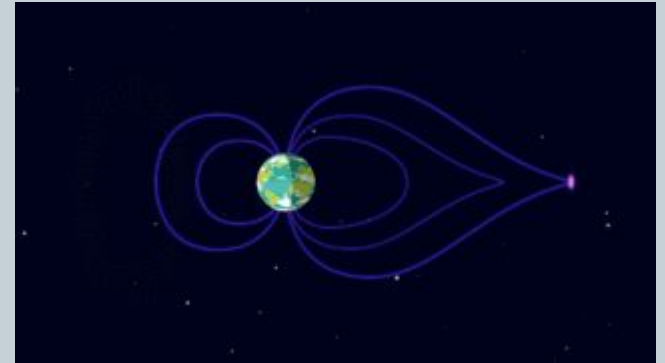
14

Washington, DC, urban heat island effect



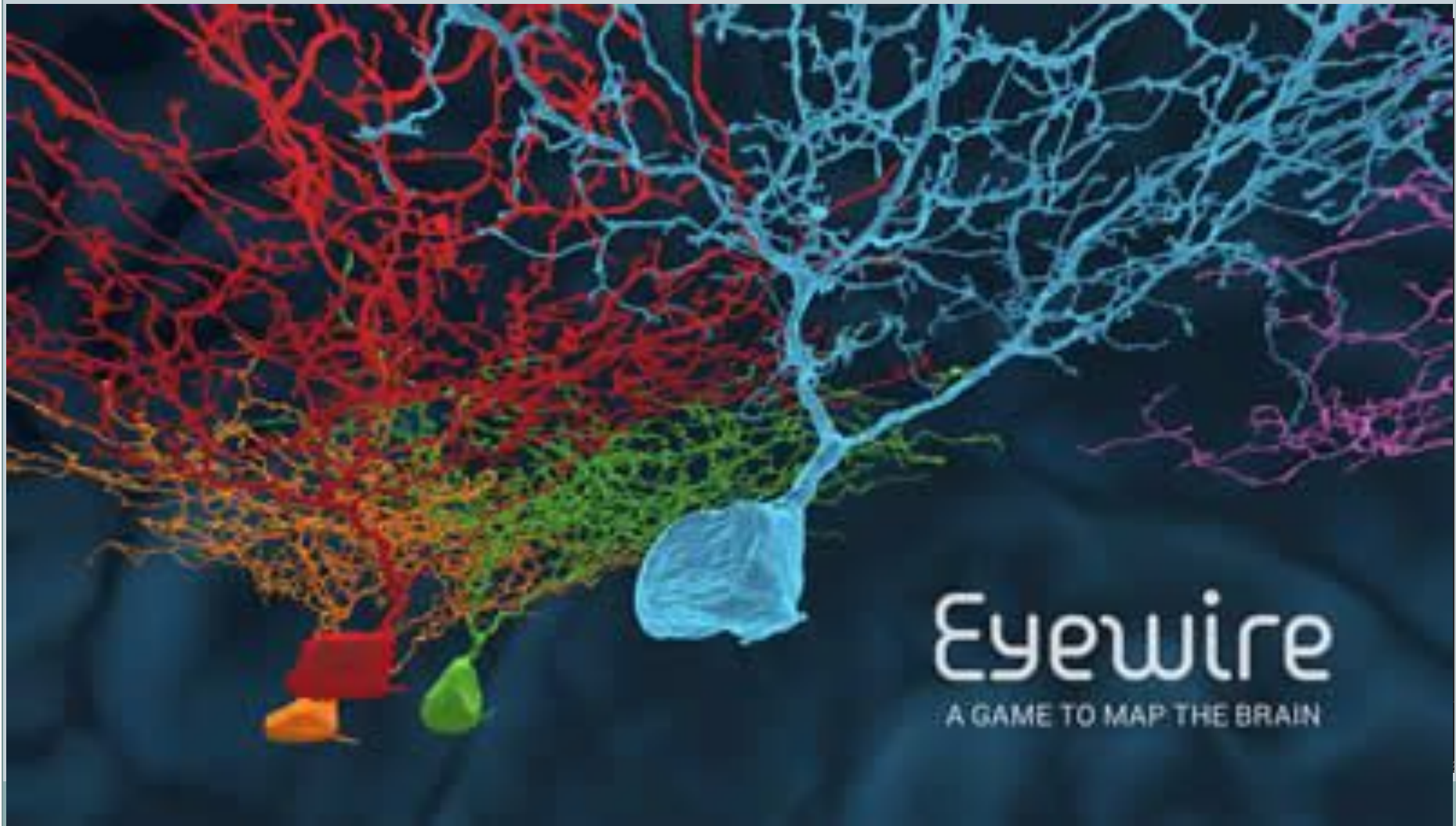
# Purple Ribbon in the Aurora Borealis?

15



# Eyewire

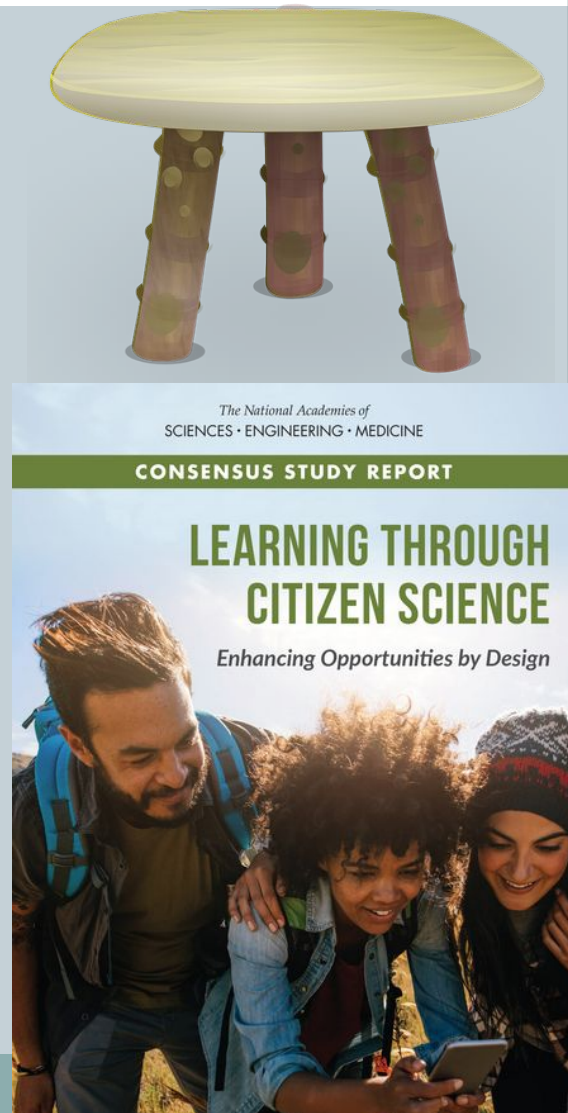
16



# Multiple, Complementary Impacts

17

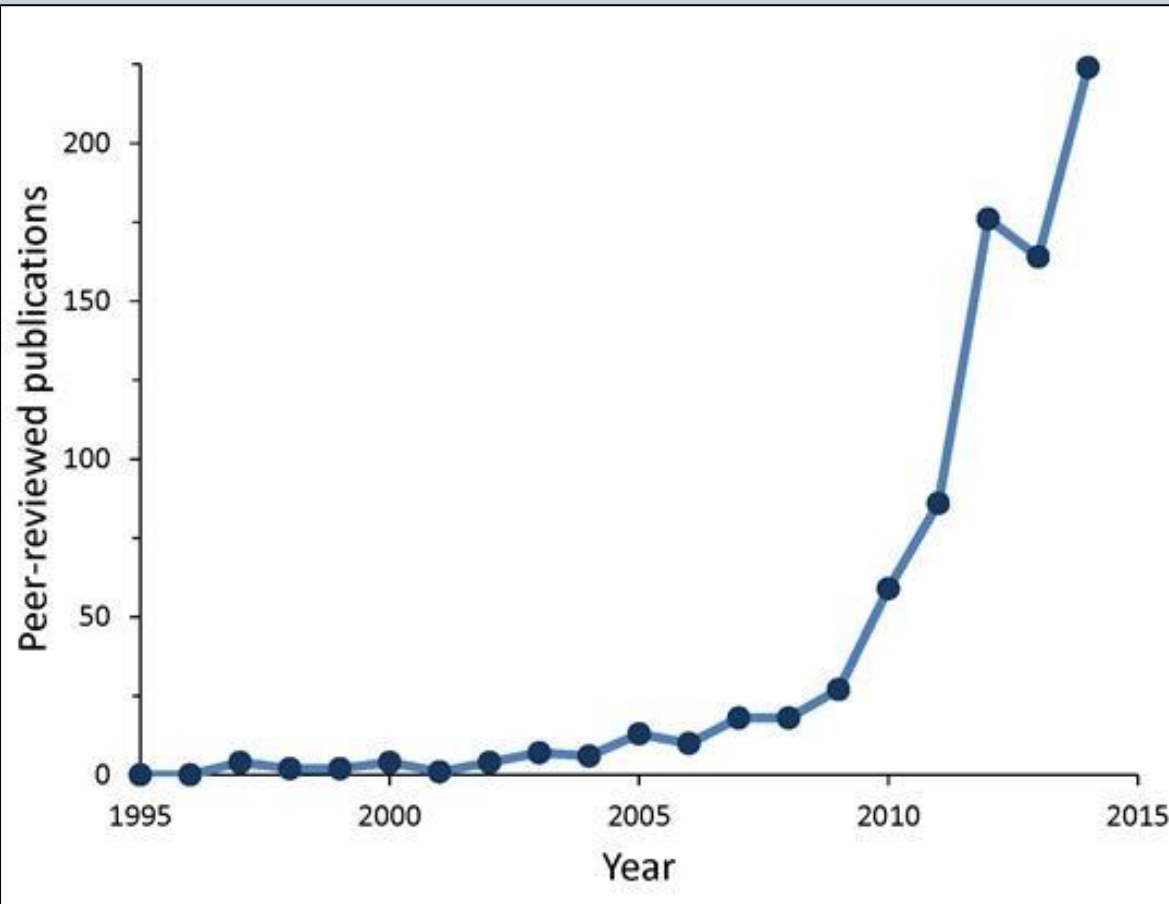
- Citizen Science can:
  - Enhance scientific research and monitoring
  - Provide hands-on learning and increase STEM literacy
  - Help address societal needs
- 2018 report from National Academies suggests these impacts can be mutually reinforcing



# A Growing Practice

18

*David Hanych, an NSF Program Officer at the time, described the growth in the field as a “coming tsunami” in 2012.*



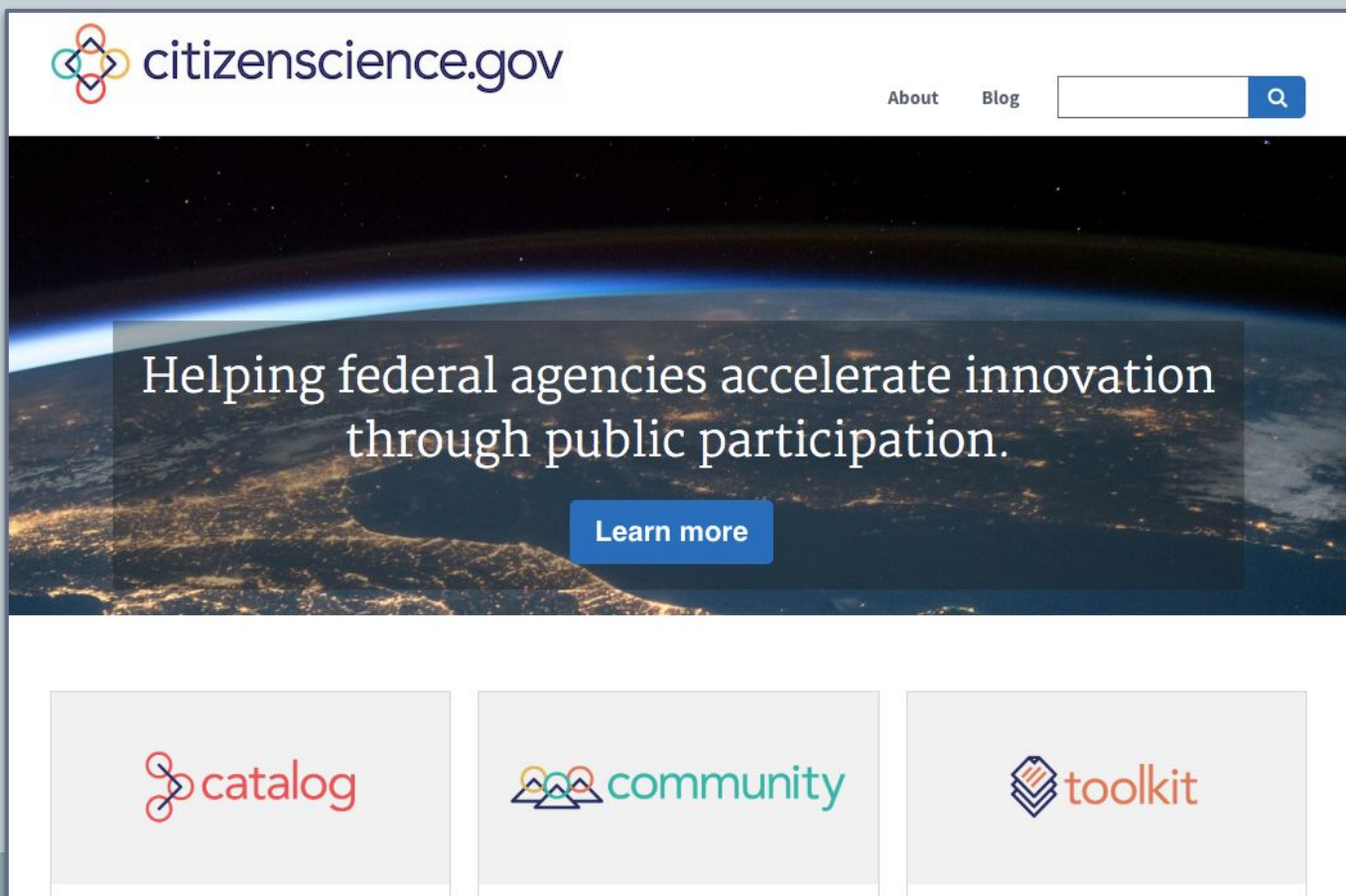
Results for a search of the Web of Science for the keyword “citizen science”

*McKinley et al (2015) Issues in Ecology 19.*

# CitizenScience.gov

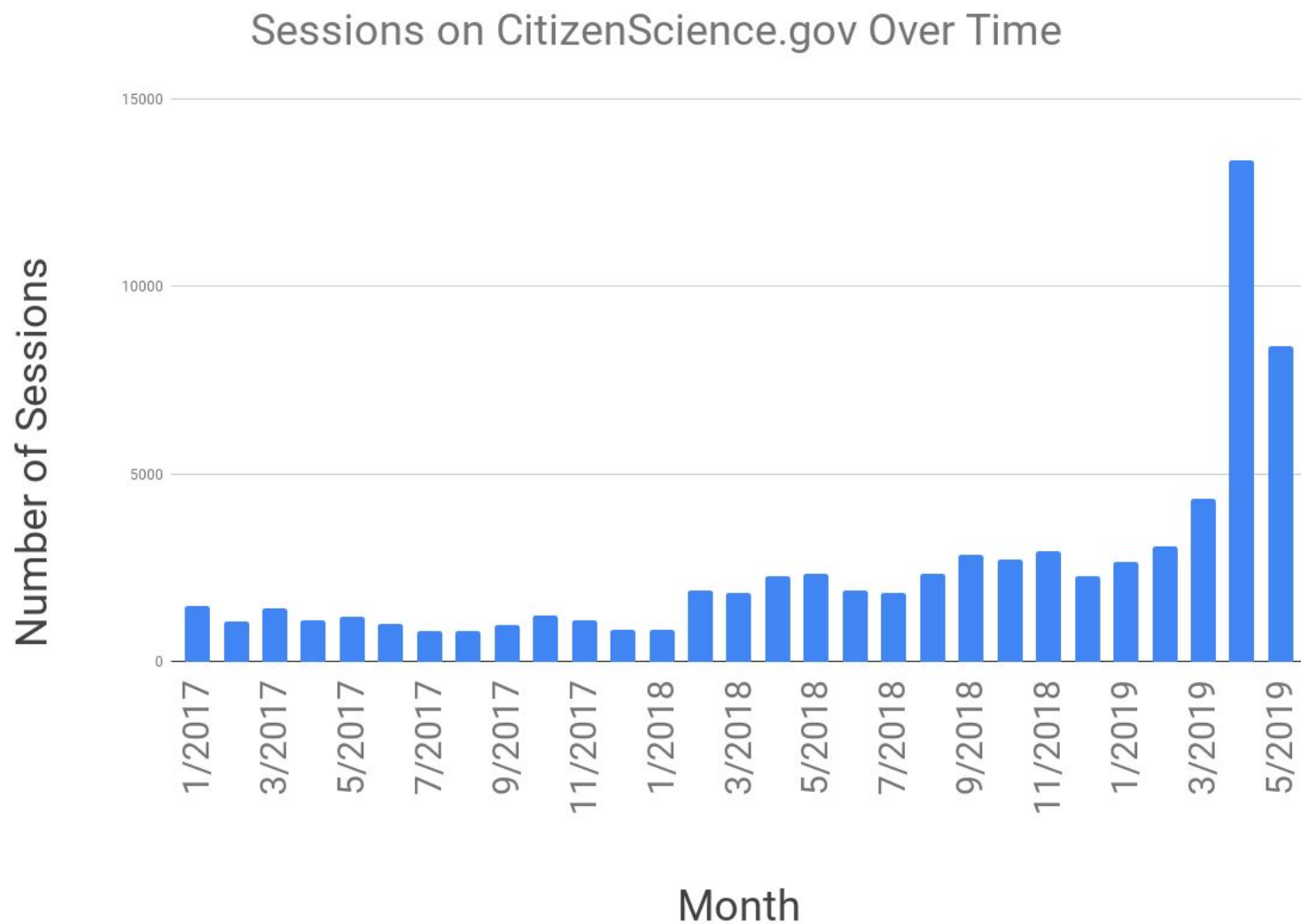
19

Resources from federal government and partners available at:



# Usage is Growing

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*Let's  
rethink*



# Federal Prize and Citizen Science Authority Implementation Highlights

**Jennifer Shieh, Ph.D.**

Assistant Director of  
Entrepreneurship

White House Office of  
Science and Technology  
Policy



# Highlights from *Implementation of Federal Prize and Citizen Science Authority: Fiscal Years 2017–2018*

Jennifer Shieh  
Office of Science and  
Technology Policy  
June 14, 2019

[www.ostp.gov](http://www.ostp.gov)  
@WHOSTP

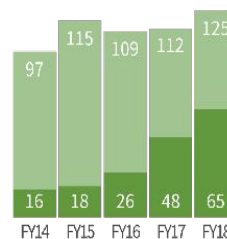


# Prize competitions aimed to engage new people, solve problems, and advance scientific research

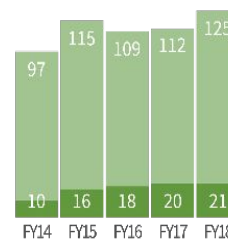


- Number of prizes and challenges seeking particular goal
- Total number of prizes and challenges reported in given fiscal year

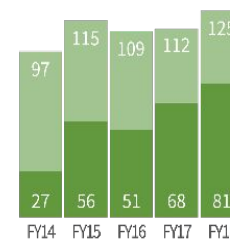
ADVANCE  
SCIENTIFIC  
RESEARCH



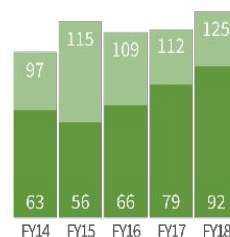
BUILD CAPACITY



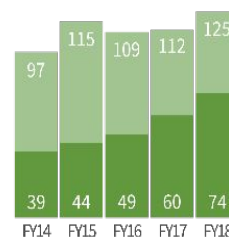
DEVELOP  
TECHNOLOGY



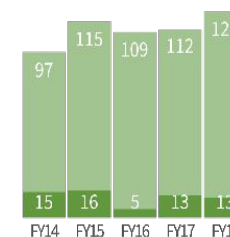
ENGAGE NEW PEOPLE  
AND COMMUNITIES



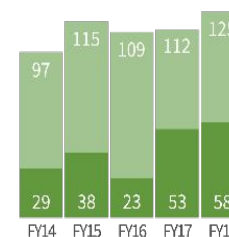
FIND AND  
HIGHLIGHT  
INNOVATIVE IDEAS



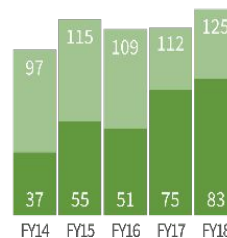
IMPROVE  
GOVERNMENT  
SERVICE DELIVERY



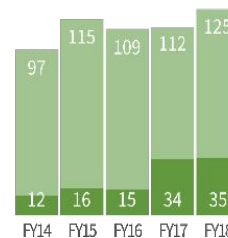
INFORM AND  
EDUCATE THE  
PUBLIC



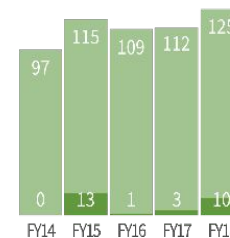
SOLVE A SPECIFIC  
PROBLEM



STIMULATE A  
MARKET



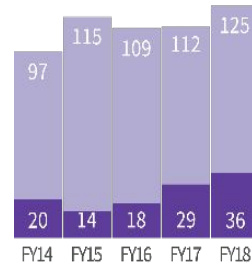
OTHER



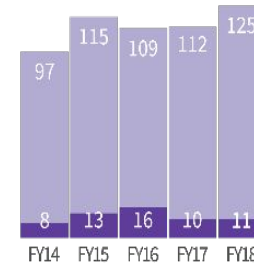
# The public submitted their ideas, and solved challenges with software, hardware, and analytics

■ Number of prizes and challenges seeking particular solution  
 ■ Total number of prizes and challenges reported in given fiscal year

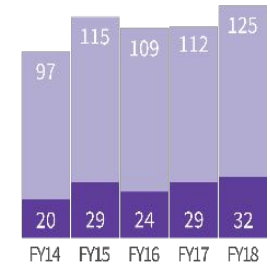
ANALYTICS  
VISUALIZATIONS  
ALGORITHMS



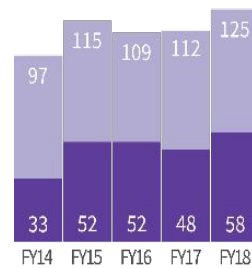
BUSINESS PLANS



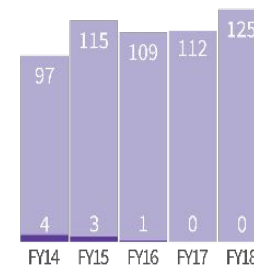
CREATIVE



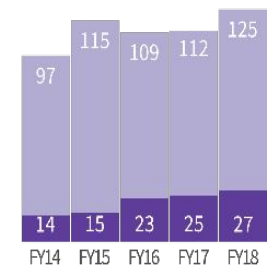
IDEAS



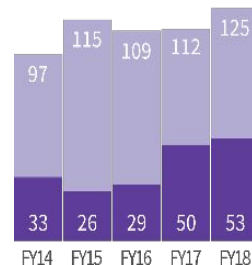
NOMINATIONS



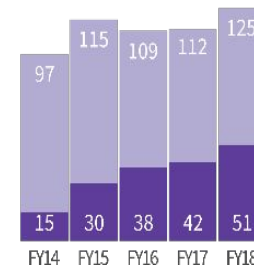
SCIENTIFIC



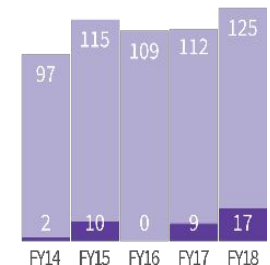
SOFTWARE AND APPS

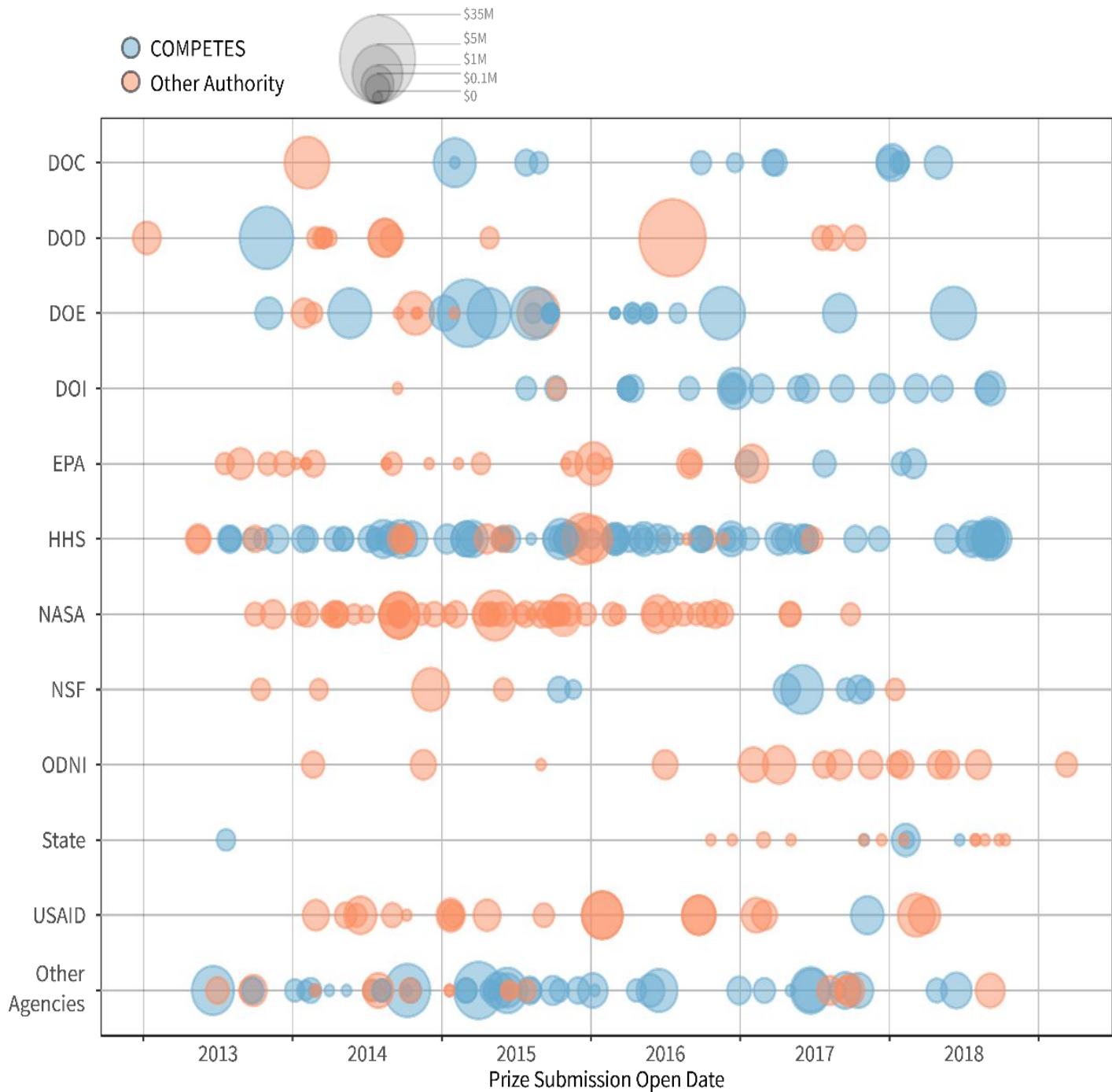


TECHNOLOGY  
DEMONSTRATION AND  
HARDWARE



OTHER



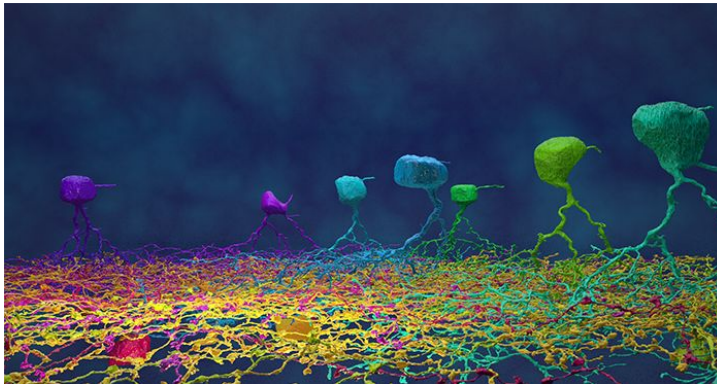


# Crowdsourcing and Citizen Science Projects are Diverse



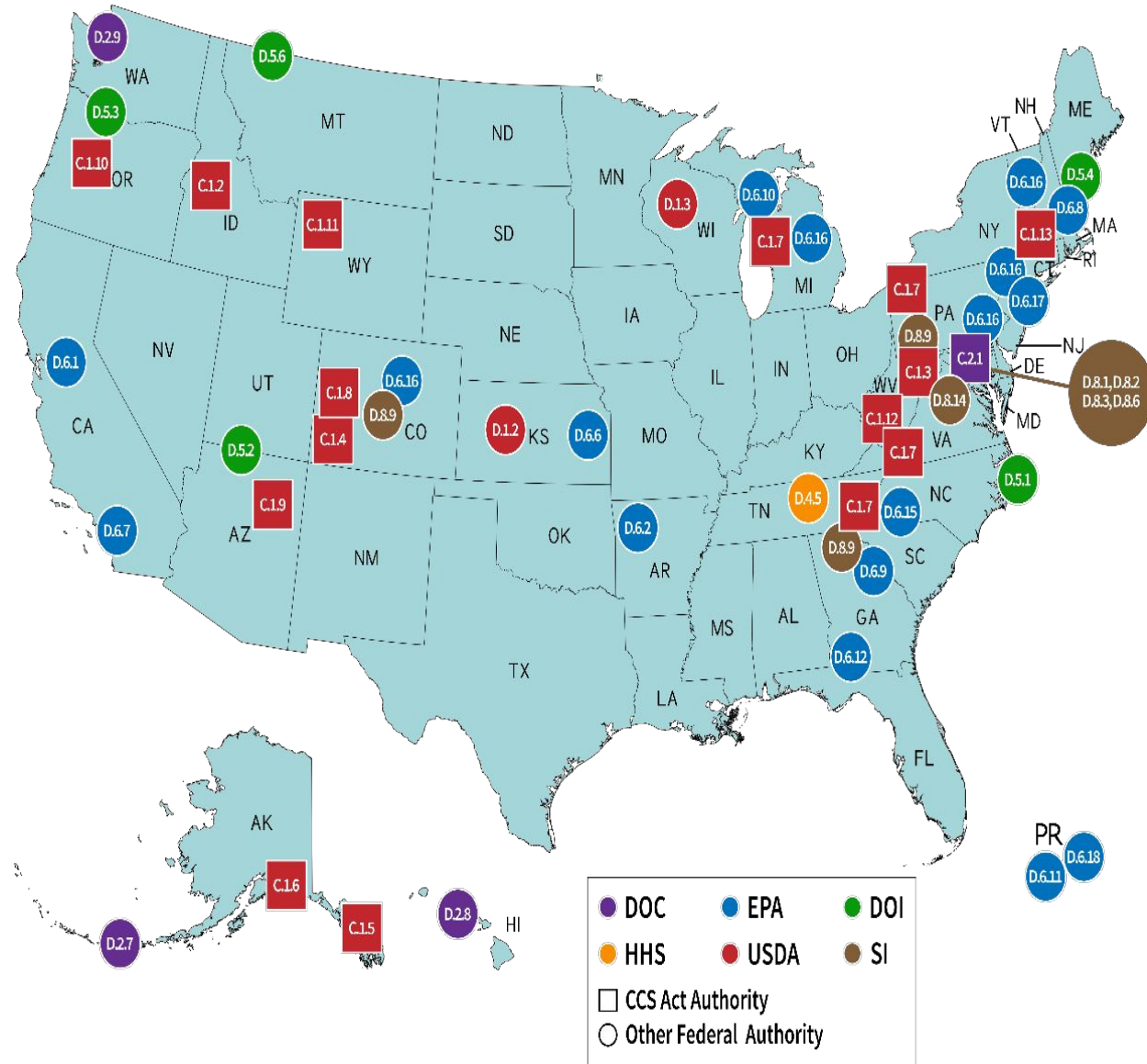
*Credit: Johanna Varner*

- Enhance scientific research
- Provide hands-on STEM learning
- Address societal needs and agency missions



*Credit: Amy Robinson, Alex Norton, William Silversmith, Jinseop Kim, Kisuk Lee, Aleks Zlasteski, Matt Green, Matthew Balkam, Rachel Prentki, Marissa Sorek, Celia David, Devon Jones, and Doug Bland, Sebastian Seung*





# Thank You!

[www.ostp.gov](http://www.ostp.gov)  
@WHOSTP



Photo credit: Lloyd Whitman

# NASA Citizen Scientists

## Marc Kuchner

Citizen Science Lead

Science Mission Directorate,  
National Aeronautics and  
Space Administration  
(NASA)





Mental Health  
Counselor



Data Scientist



Pulmonologist

# NASA has > 1.5 million Citizen Scientists



College Physics Major

High School  
Student

Chef/  
Entrepreneur

Stay-at-Home  
Mom

Retired  
Bioscientist



Special Needs Educator  
w/Masters in Astronomy



Computer Technician

## NASA-Funded Citizen Science Projects Have Discovered:

- 400,000 Martian Seasonal Fans (Planet Four)
- 3500 Comets (Sungrazer Project)
- 1000 Brown Dwarf Candidates (Backyard Worlds: Planet 9)
- 100 Extrasolar Planets (Planet Hunters)
- 47 Near-Earth Asteroids (IASC)
- 4 Meteorites (Desert Fireball Network)
- *A New Kind* of Aurora (Aurorasaurus)
- The Oldest Planet-forming Disk (Disk Detective)



## Tom Bolton

His penguin population dynamics model outperformed the model created by experts!



## Hugo Durantini Luca

Drove 12 hours across South America to help out with an observing run!





## **Michaela Allen**

Business major....now  
starting a masters  
program in astrophysics!

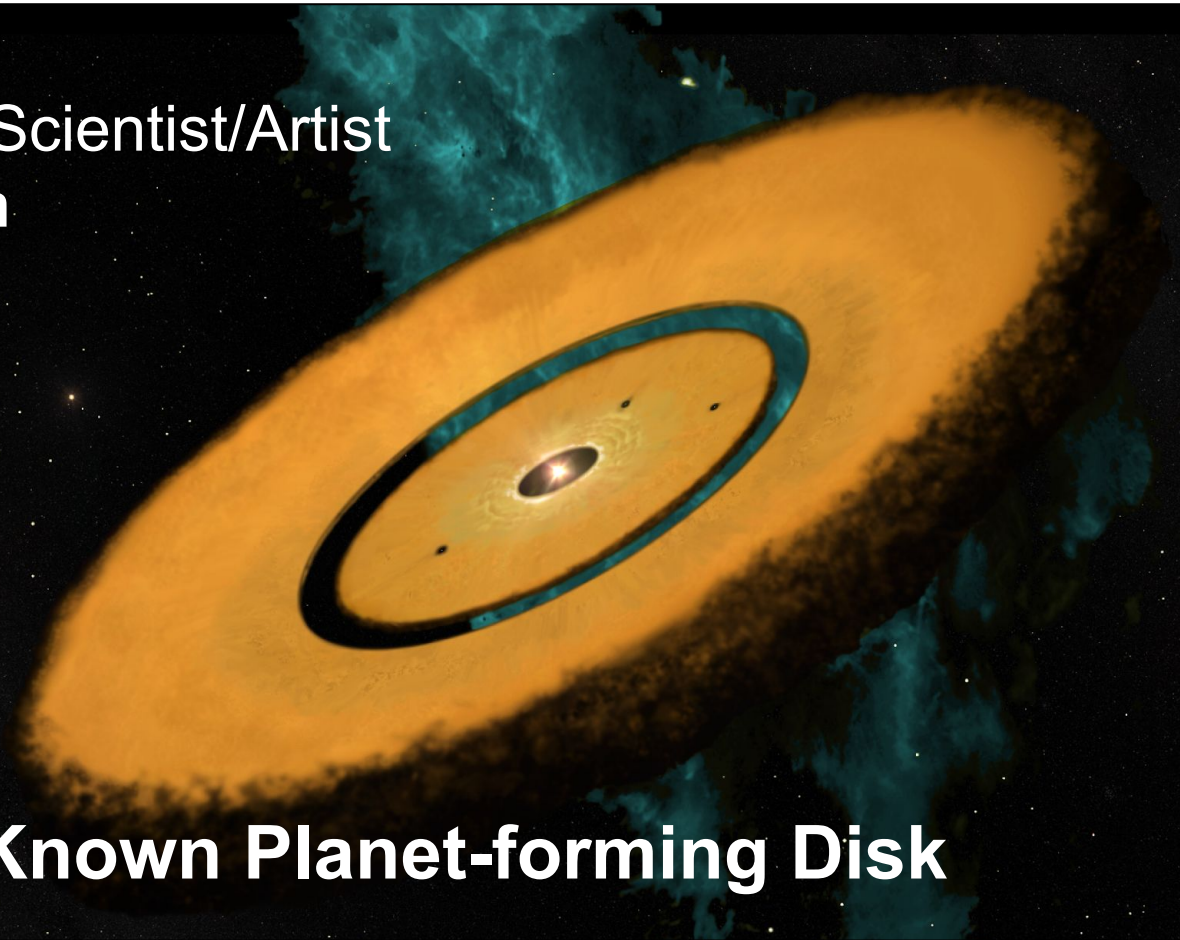


## Michiharu Hyogu

Now a professor at Meisei University!

“The professor from the University of Tokyo, who helped me organize the demonstration sessions for Disk Detective, has introduced me about the position....Since I did well leading the demonstration session, he thought I might be very well suited for this position...”

Image by Citizen Scientist/Artist  
**Jonathan Holden**



**Oldest Known Planet-forming Disk**

Now in the University of Michigan Natural History Museum!

## The First Brown Dwarf Discovered by the I Planet 9 Citizen Science Proj

Marc J. Ruchner<sup>1</sup>, Jacqueline K. Faherty<sup>2</sup>, Adam C. Schneider<sup>3</sup>, Aaron M. Meisner<sup>1</sup>,  
Laura Trroule<sup>1</sup>, Steven M. Silverberg<sup>1</sup>, Rosa Castro<sup>2</sup>, Bob Fletcher<sup>1</sup>, Kha  
<sup>1</sup>NASA Goddard Space Flight Center, 14303  
<sup>2</sup>University of Michigan and Stellar Astrophysics Laboratory,



### Rosa Castro

“I am just honored to be part of this process. I entered this activity without any agenda and simply from a place of joy.”

The oldest disk around a **white** dwarf, an analog for the solar system 8 million years from now.

# BACKYARD WORLDS: PLANET 9

Two dust rings.

Cold **white** dwarf  
LSPM J0207+333

Tidally shredded  
comets and asteroids.

Discovered by  
Citizen Scientist  
**Melina Thévenot**



[backyardworlds.org](http://backyardworlds.org)

# Sciencing with NASA Facebook Group!

## Facebook.com/groups/Sciencing

Sciencing with NASA

https://www.facebook.com/groups/Sciencing/

Sciencing with NASA

Closed group

Interacting as yourself

About

Discussion

Chats

Members

Events

Photos

Group Insights

Moderate Group

Search this group

Sciencing

Crowdsourcing

Discoveries

Collaboration

Awesome

Research

Joined

Notifications

Share

More

Write Post

Add Photo/Video

Live Video

More

Write something...

Photo/Video

Watch Party

Tag Friends

More

GROUP BY

NASA - National Aeronautic...

21,358,873 like this

Use App

INVITE MEMBERS

Embed Invite

Contact: [Marc.Kuchner@nasa.gov](mailto:Marc.Kuchner@nasa.gov)

[science.nasa.gov/citizenscientists](https://science.nasa.gov/citizenscientists)

byw.tools/wiseview#ra=133.79 x Marc

← → ↻ ⓘ Not Secure byw.tools/wiseview#ra=133.795140&dec=-7.24515... ☆

Right Ascension and declination (decimal)  
133.795140 -7.245150

Field of View (arcseconds): 100

W2 jet fixed

Trim Bright (521.66)

Linear (1)

Speed (274)

Nearest Zooniverse Subjects:

maximum intensity before stretching. In "percent" mode, "Trim Bright" scales to the "Trim Bright" percentile, whereas "fixed" sets an absolute maximum intensity. For example, "percent" with "99.5" caps the intensity to that of the 99.5th percentile pixel, whereas "fixed" with "1000" caps it at 1000. "adapt" attempts to find good minimum and maximum values automatically, and does not take a "Trim Bright" input.

To replicate legacy wiseview behavior, use either "fixed" or "percent" (instead of legacy "Brighten"), and set "linear" = 1.

Band W1 and W2 correspond to WISE bands. "Bands W1+W2" displays a color image where W1 is blue and W2 is red.

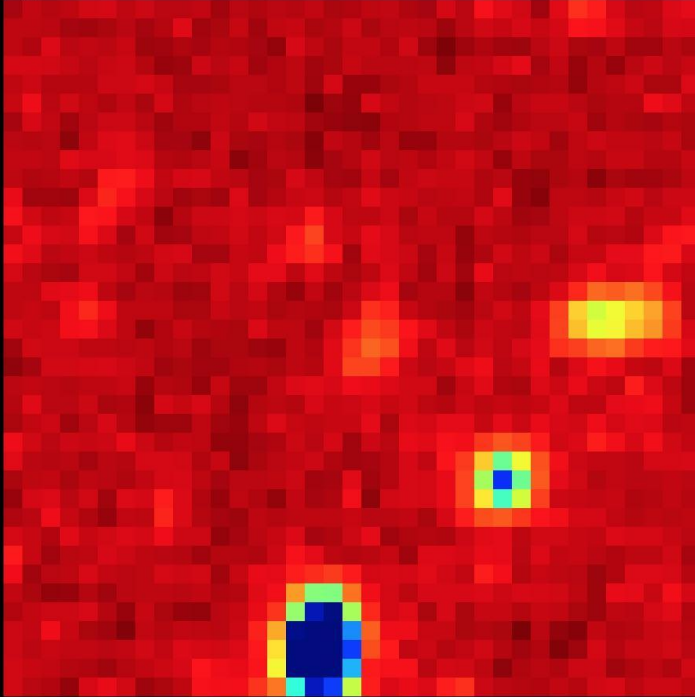

This site is authored by Dan Caselden and Paul Westin. For questions, you may contact this gmail address: dancaselden

[1] unWISE AllWISE:  
<http://adsabs.harvard.edu/abs/2014AJ....147..10>

[2] unWISE NEO1:  
<http://adsabs.harvard.edu/abs/2017AJ....153...3>

[3] unWISE NEO2:  
<http://adsabs.harvard.edu/abs/2017arXiv17050>

post

# WISEView

## Web-Based Tool

Written by  
Citizen Scientists  
Dan Caselden  
and Paul Westin



# NIST Public Safety Communications Research: Prize Challenges

## Ellen Ryan

Deputy Division Chief,  
Public Safety  
Communications Research

National Institute of  
Standards and Technology  
(NIST)



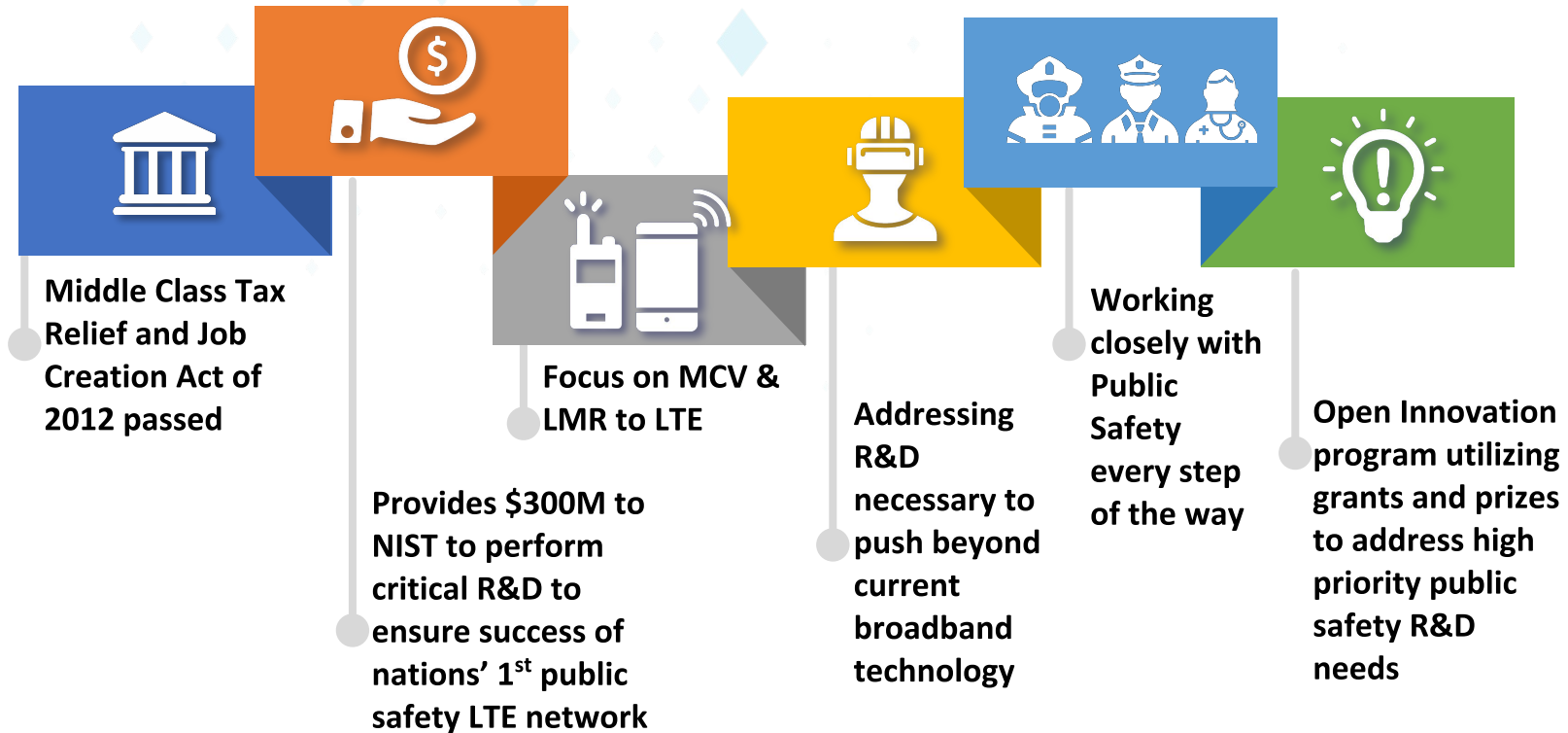
# NIST Public Safety Communications Research (PSCR): Prize Challenges

June 14, 2019

Open Innovation Team  
Public Safety Communications  
Research  
NIST



# PSCR Innovation Accelerator Program



# Past PSCR Prize Challenges

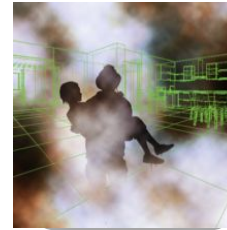
## 2017 The Future of Public Safety Technology Challenge



- ❑ **Challenge:** Submit a video concept that will inspire Americans to help develop the public safety technology of tomorrow.
- ❑ **Prize Purse: \$100,000**

## 2018 Unmanned Aerial Systems Flight and Payload Challenge

- ❑ **Challenge:** Keep a UAS and its payload airborne for the longest time possible.
- ❑ **Prize Purse: \$432,000**

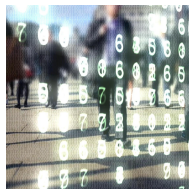


## 2018 Virtual Reality Heads-Up Display Navigation Challenge

- ❑ **Challenge:** Create a heads-up display (HUD) for first responders' navigation with unimpeded visual aids.
- ❑ **Prize Purse: \$125,000**

## 2018/2019 Differential Privacy Synthetic Data Challenge

- ❑ Creating new methods of data de-identification for practical utility through developing differential privacy synthetic datasets.
- ❑ **Prize Purse: \$190,000**





# Current PSCR Prize Challenges



**PARTICIPATE ONLINE//  
OR IN PERSON**

**#TECHTOPROTECT**

Held throughout 2019, both online and at 10 in-person locations across the U.S., the Tech to Protect coding contests will bring creative minds together to collaborate and solve complex technology challenges that emergency responders face. Contest solutions will include mobile apps, software applications, user interfaces, data systems and more.



*Tech to Protect//*

## LOCATION & DATES

**September 27-29**

Chicago, IL  
College Station, TX  
Denver, CO  
Pittsburgh, PA  
Washington, DC

**November 1-3**

Miami, FL  
Los Angeles, CA  
New York, NY  
San Francisco, CA  
Seattle, WA

**[www.techtoprotectchallenge.org](http://www.techtoprotectchallenge.org)**

**REDFLASH**  
GROUP

**SECONDMUSE**

**NIST**





**USE YOUR SECURITY OR  
DEVELOPMENT EXPERTISE  
TO HELP PUBLIC SAFETY  
OFFICIALS!**

## **NIST PSCR's Expanding the SIM Card Use for Public Safety Challenge**

Challenge Kickoff Meeting

June 10, 2019

### **Phase 1: Concept Paper**



**Start:** April 3, 2019

**End:** June 3, 2019

### **Phase 2: File Stored on SIM Card**



**June 3, 2019**

**August 14, 2019**

### **Phase 3: Verified Authentication**



**August 14, 2019**

**October 23, 2019**

**NIST**

**PUBLIC SAFETY  
COMMUNICATIONS  
PSCR  
RESEARCH**



**Phase 1**  
Concept Paper



**Start:** March 18

**End:** May 10

**Phase 2**  
Teaming



May 13

May 23

**Phase 3**  
Prototyping



May 24

July 9 -11

**Phase 4**  
VR Evaluation



July 9

September 10

**Phase 5**  
Fire Nav. Course



September 10

November 15

**NIST**



**PUBLIC SAFETY  
COMMUNICATIONS  
RESEARCH**

Challenge Kickoff Meeting  
May 14, 2019



## America's first responders need your help.

Support our nation's' heroes -- while  
advancing your own research and  
innovation -- with funding from PSCR.

**Get started by signing up  
for the PSCR Newsletter at [PSCR.gov](https://PSCR.gov).**



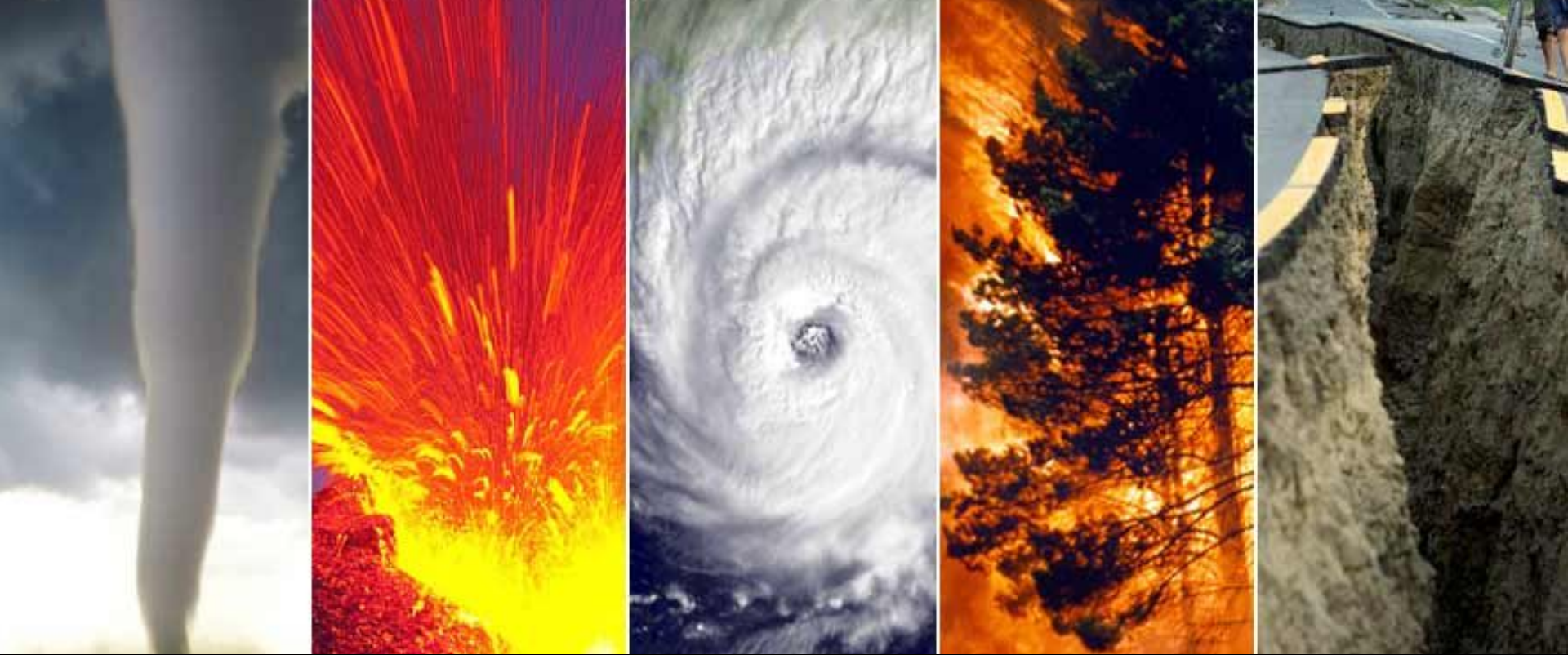
# Leveraging Social Media and Digital Volunteers to Inform Hazard Science and Emergency Management

**Sophia B. Liu, Ph.D.**

Innovation Specialist

U.S. Geological Survey





# Leveraging Social Media and Digital Volunteers to Inform Hazard Science and Emergency Management



**Sophia B Liu, Ph.D.**

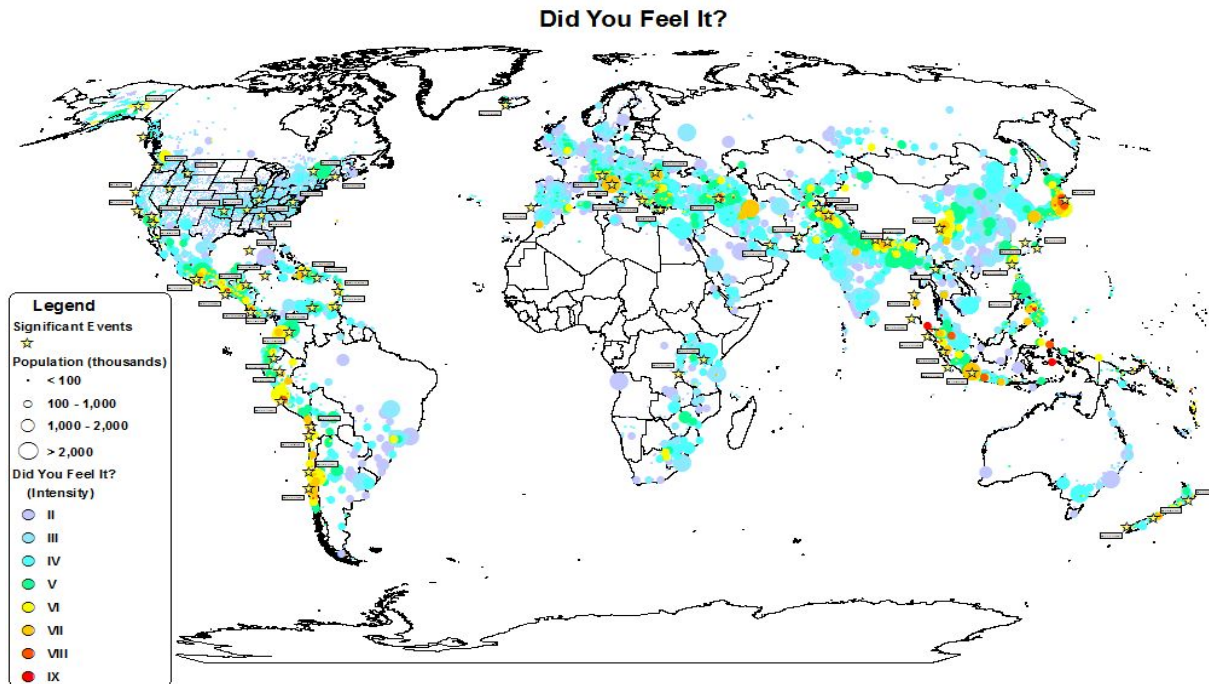
**@sophiabliu**

Innovation Specialist, Science and Decisions Center, U.S. Geological Survey (USGS)  
Co-Chair of Federal Community of Practice for Crowdsourcing & Citizen Science (CCS)  
USGS CCS Coordinator and FEMA Crowdsourcing Unit Coordinator

*June 14, 2019*

*1<sup>st</sup> US Government Open Innovation Summit*

# USGS Did You Feel It? (DYFI)



4.5+ million DYFI reports since 1991



~ 30 seconds to  
submit report

## Felt Report

OMB No. 1028-0048

Expires 05/31/2018

Your location when the earthquake occurred

Choose Location

Did pictures on walls move or get knocked askew?

- ☐ Not specified  
☐ No  
☐ Yes, but did not fall  
☐ Yes, and some fell

Did any furniture or appliances slide, topple over, or become displaced?

- ☐ Not specified  
☐ No  
☐ Yes

Was a heavy appliance (refrigerator or range) affected?

- ☐ Not specified  
☐ No  
☐ Yes, some contents fell out  
☐ Yes, shifted by inches  
☐ Yes, shifted by a foot or more  
☐ Yes, overturned

Were free-standing walls or fences damaged?

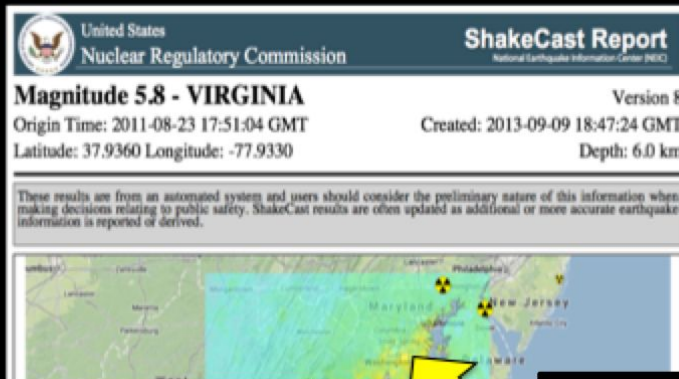
- ☐ Not specified  
☐ No  
☐ Yes, some were cracked  
☐ Yes, some partially fell  
☐ Yes, some fell completely

Submit

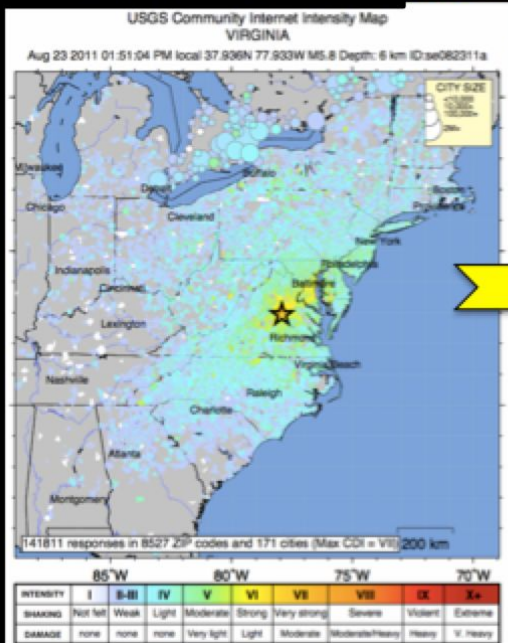
Cancel

# Integration into Official USGS Products

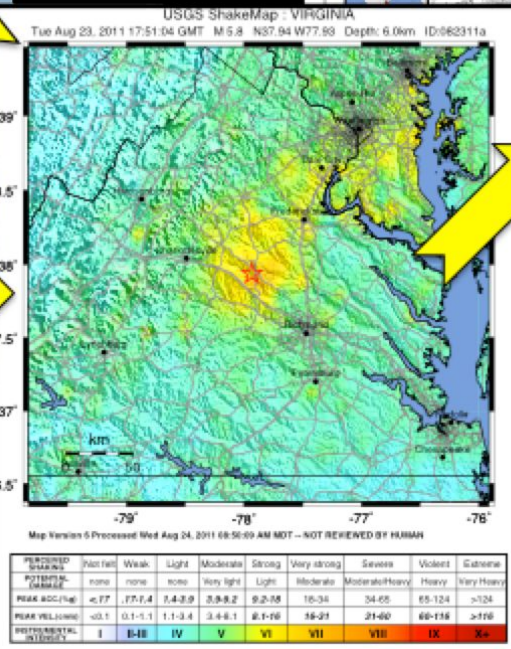
## ShakeCast



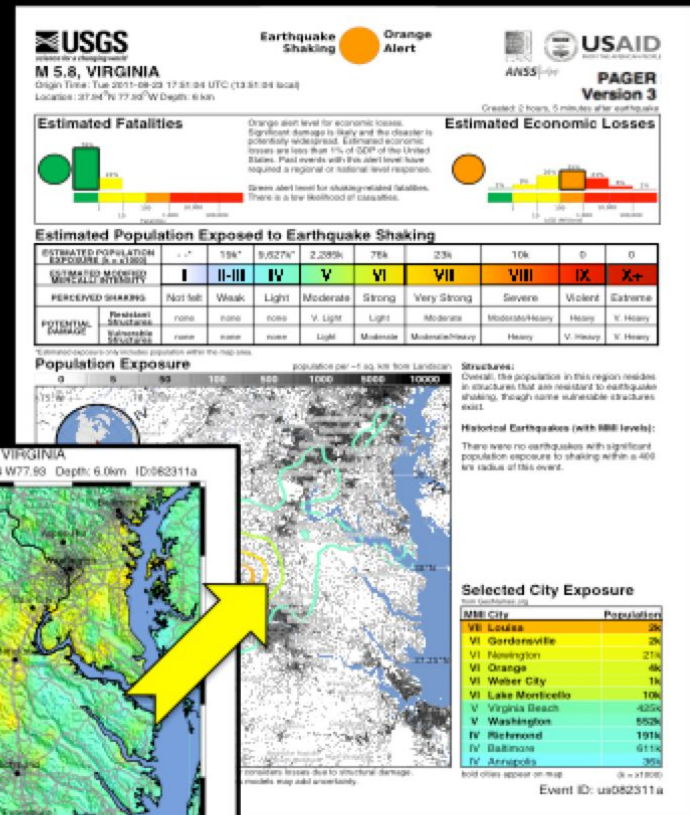
“Did You Feel It?”



## ShakeMap



## PAGER (Prompt Assessment of Global Earthquakes for Response)

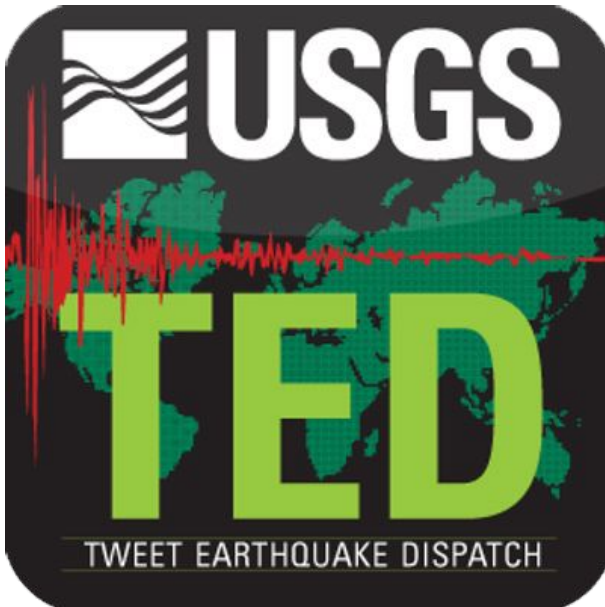
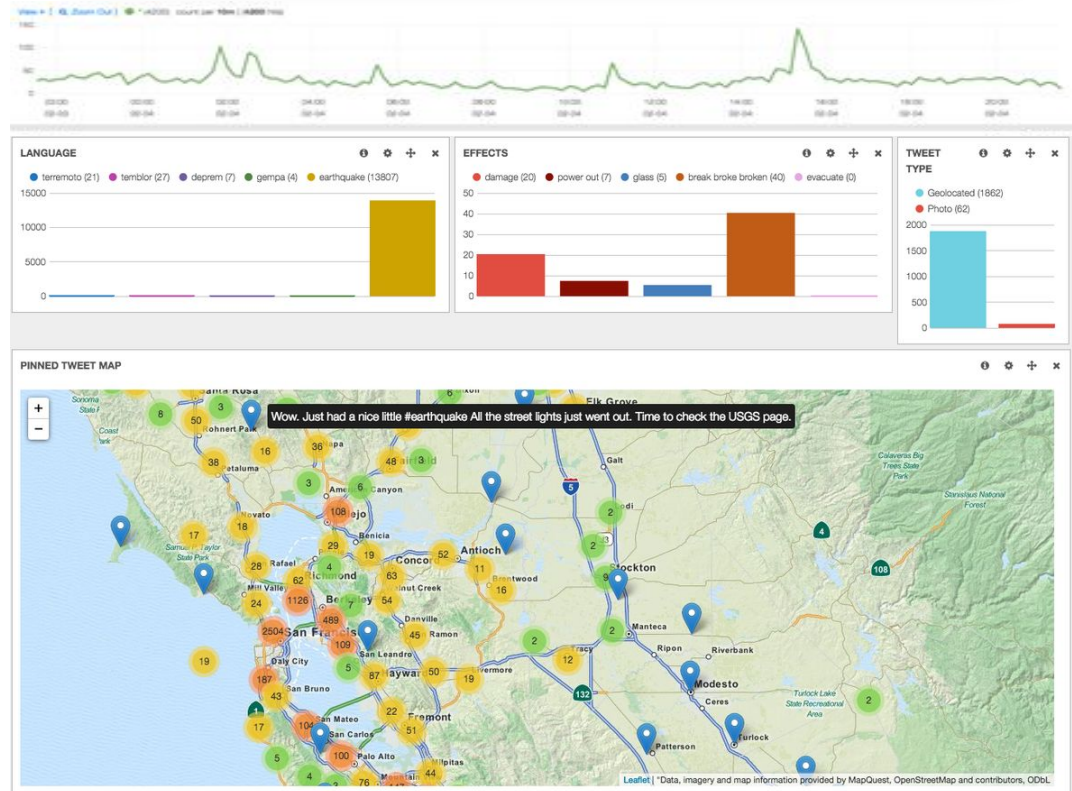


# USGS Tweet Earthquake Dispatch (TED)

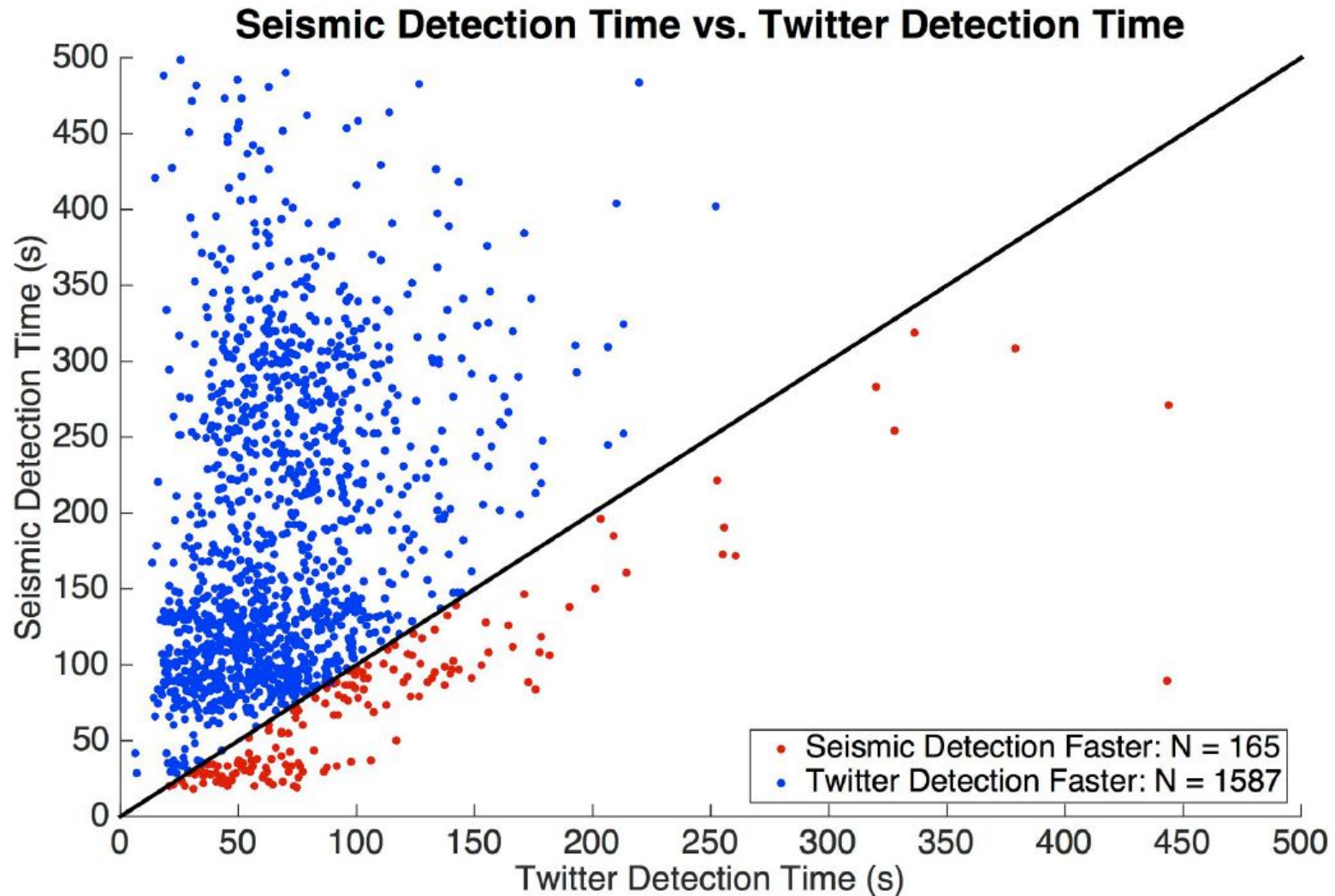


## OMG Earthquake! Can Twitter Improve Earthquake Response?

**Paul Earle, Michelle Guy, Richard Buckmaster, Chris Ostrum, Scott Horvath, and Amy Vaughan**  
U.S. Geological Survey



# USGS Tweet Earthquake Dispatch (TED)



**90%** of TED Detections are **FASTER** than seismometer detections

# USGS Tweet Earthquake Dispatch (TED)



USGSSted @USGSSted · Aug 23  
Prelim M5.5 earthquake OFFSHORE  
COQUIMBO, CHILE Aug-23 23:10 UTC,  
updates [on.doi.gov/1V38Ylh](https://on.doi.gov/1V38Ylh), 82 #temblor  
tweets/min

21 11



**Broadcast @USGSSted public Tweet alerts with frequency of earthquake tweets and official USGS seismic data**

**Using Twitter platform to broadcast earthquake alerts more rapidly and efficiently**

# Value of USGS TED Detections

## □ SPEED:

- 90% of TED detections are faster than automatic detections
- Currency vs Accuracy, provides starting time and location

## □ COMPLETENESS:

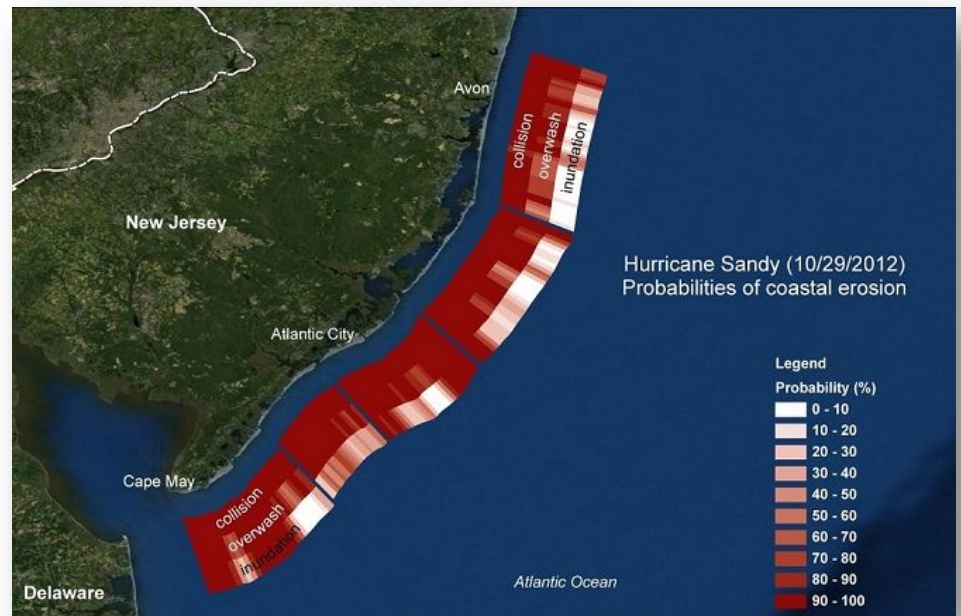
- Improves completeness for felt earthquakes in sparsely instrumented areas
- Detects lower magnitude felt earthquakes
- Around 22% of earthquakes are missed by seismic systems

## □ LOW-COST INFRASTRUCTURE:

- Inexpensive to develop, access, and use Twitter data
- Using Twitter platform to broadcast earthquake alerts more efficiently

# USGS iCoast - Did the Coast Change?

- **Ground truth, validate, and enhance** USGS coastal erosion prediction models
- **Cost effective** way to classify large volumes of photos covering a wide area to enhance coastal hazard research and response to extreme storms
- **Educate the public** about coast vulnerability from extreme storms



# USGS iCoast - Did the Coast Change?



USGS Home  
Contact USGS  
Search USGS

## USGS iCoast - Did the Coast Change?

[Home](#) [Classify](#) [Profile](#) [Help](#) [About](#) [Logout](#)

### PRE-STORM: Before Hurricane Sandy

21 May 2009 at 10:52:22 EDT near Winter Yacht Basin, Mantoloking, NJ



### POST-STORM: After Hurricane Sandy

05 Nov 2012 at 12:24:10 EST near Winter Yacht Basin, Mantoloking, NJ



## TASK 4: SPECIFY CHANGES TO COASTAL LANDFORMS

What changes do you see in the POST-storm photo for each coastal change process?

### Beach Erosion (choose any)

Less Sand

Dark Sand

Beach Scarp

### Dune Erosion (choose any)

Dune Scarp

Leveled Dune

Less Vegetation

### Overwash (choose any)

Sand Inland

Sand on Roads

Sand in Marsh

### Inundation (choose any)

Breach

Standing Water

Dead Vegetation

Which coastal change process is most dominant in the POST-storm photo?  
(choose one)

Beach Erosion

Dune Erosion

Overwash

Inundation

No Change

PREVIOUS TASK

● ● ● 4 ●

NEXT TASK

**“'PLEASE SEND HELP.'**

**HURRICANE HARVEY VICTIMS**

**TURN TO TWITTER AND FACEBOOK” (TIME)**

**“HURRICANE HARVEY:**

**5 WAYS SOCIAL MEDIA SAVED**

**LIVES IN TEXAS” (SAN DIEGO UNION-TRIBUNE)**

**“SOCIAL MEDIA PLAYS GROWING ROLE IN GUARD'S**

**HURRICANE RESPONSE” (MILITARY.COM)**

**“WHEN DISASTER**

**HITS AND LANDLINES FAIL, SOCIAL**

**MEDIA IS A LIFELINE” (NEW YORK TIMES)**

**FACEBOOK, TWITTER REPLACE**

**911 CALLS FOR STRANDED IN HOUSTON (NPR)**

**“REDDIT, TWITTER OFFER**

**AN OASIS OF INFO, RESOURCES FOR HARVEY**

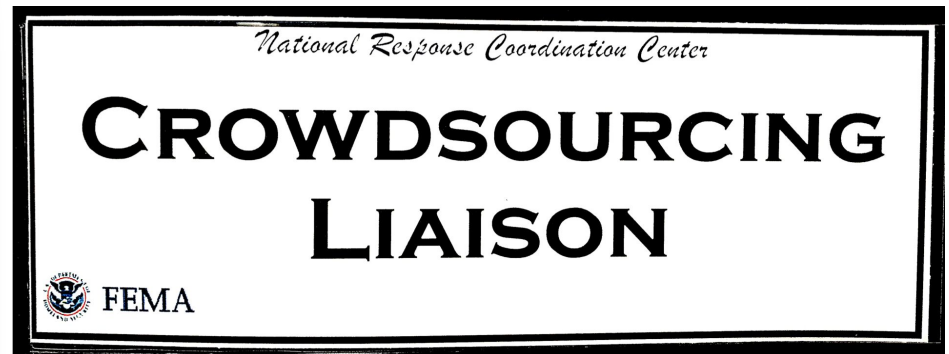
**VICTIMS” (MASHABLE)**



# FEMA Crowdsourcing Unit

**“Don’t think outside the box...FORGET the friggin’ box!”**

— Brock Long (FEMA Administrator)



# FEMA Crowdsourcing Unit Activations

**4** Hurricanes

**2** National Exercises

**50** Crowdsourced Products

**10** Digital Volunteer Networks

**8** Private Sector Companies



Crowdsourcing Playbook for  
Emergency Management  
Considerations for Emergency Managers

[Month] 2018]



DRAFT v4

# FEMA Crowdsourcing Unit Activations

**October 6 - 20, 2017**

## Activation #1 - Hurricane Maria

- 13 Coordination Calls and Reports
- 11 Crowdsourcing Products
- 6 Digital Volunteer Networks
- 5,700+ Volunteers
- 2 Hackathons
- \* Crowdsourcing Exchange Hackathon at FEMA HQ

**August 22 - 25, 2018**

## Activation #2 - Hurricane Lane

- 3 Coordination Calls
- 7 Crowdsourcing Products
- 6 Digital Volunteer Networks
- \* Official updates posted on social media in real-time
- \* Monitored Waze, GasBuddy, RxOpen

**September 10 - 20, 2018**

## Activation #3 - Hurricane Florence (Olivia)

- 10 Coordination Calls
- 26 Crowdsourcing Roll-Ups
- 16 Crowdsourcing Products
- 8 Digital Volunteer Networks
- 8 Private Sector and other Partners
- \* Partnered with Private Sector thru NBEOC



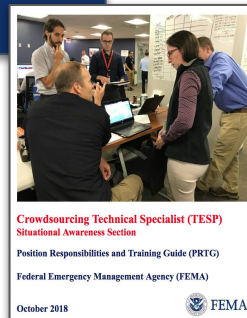
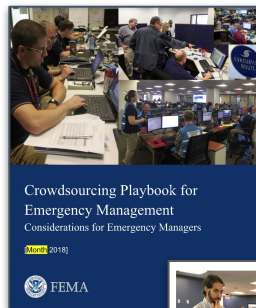
**November 2017 - August 2018**

## Steady State

Participated in the **National Level Exercise** (May 3-8, 2018)

Developed **Crowdsourcing Playbook** for Emergency Management (Version 1)

Drafted Crowdsourcing Technical Specialist **Position Responsibilities and Training Guide (PRTG)**



**October 8 - 14, 2018**

## Activation #4 - Hurricane Michael

- 7 Coordination Calls
- 11 Crowdsourcing & Social Listening Reports
- 15 Crowdsourcing Products
- 8 Digital Volunteer Networks
- 9 Private Sector and other Partners
- \* Waze & GasBuddy integrated into FEMA GIS dashboards

# Partners and Participants

## Digital Volunteer Networks



## Private Tech Sector



## NGOs and Non-Profit Organizations



## Federal Partners



## FEMA (NRCC Staff, Regional Staff, Liaisons, ESFs)



FEMA

Situational Awareness Section, GIS Unit, External Affairs, National Business Emergency Operations Center, Mass Care, OpenFEMA, Region 3, Region 4, Region 9, IMAT-East

# Crowdsourcing CAP Imagery Analysis for Damage Assessment



<< Previous Image Submit Skip - New Image >>

## Mark the Image with Damage Assessments

FEMA: Image Analysis Training

☐ Mark Buildings as Affected

☒ Mark Buildings as Minor

☐ Mark Buildings as Major

☒ Mark Buildings as Destroyed

Remove All Marks on Image

☐ In General, Impact is shown in Image

☐ In General, No Impact in Images

### Image Info:

Event: CAP - Hurricane Irma

Team: 17-1-5752

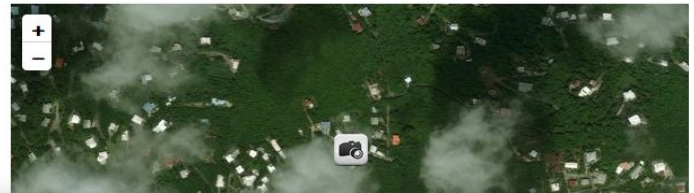
Mission: A0011

Photo Date: 2017-09-10 09:34:31

Altitude: 491(m)



# FEMA



Civil Air Patrol

Like This Page · October 7 ·

Civil Air Patrol Puerto Rico Wing members review #HurricaneMaria damage assessment photos using FEMA Federal Emergency Management Agency's crowdsourcing site. AOPA: your freedom to fly. Air Force Association, United States Air Force, Air Combat Command, Flying Magazine, General Aviation News, Plane & Pilot Magazine

Paul Weacott, Ricardo X. Torres, Herman Liboy and 283 others like this.

Top Comments ·

72 Shares

6 Comments



Civil Air Patrol Here's the crowdsourcing site -- <http://imageryuploader.geoplatform.gov/DamageReview/>

CAP Image Damage Assessment

IMAGERYUPLOADER.GEOPLATFORM.GOV

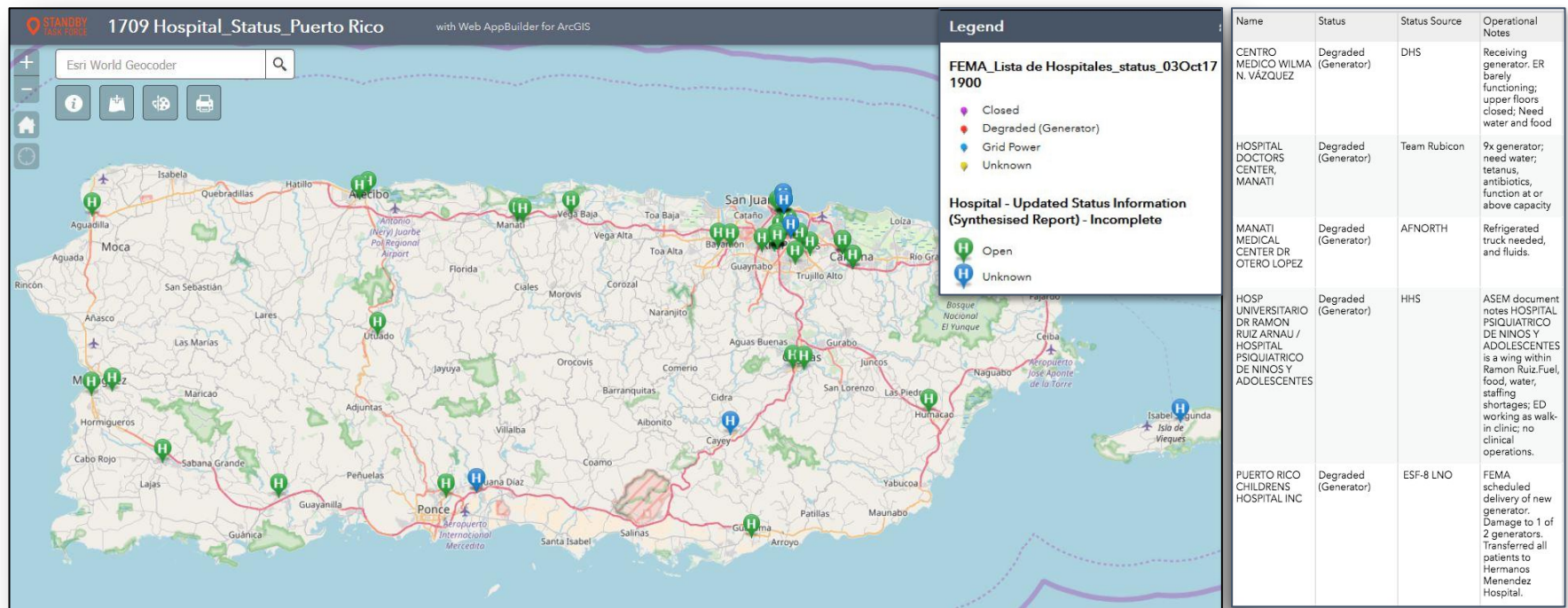
October 7 at 5:55pm · Edited

# Hospital Status Map



*Standby Task Force (SBTF) was formed in 2010 to provide volunteer online digital responses to humanitarian crises.*

In 36 hours, **55 Standby Task Force volunteers** updated **33 of 71 hospitals** (compared to **30 of 71 hospitals** on the official side), then they found info on **63 of 71 hospitals & 44 other health facilities**.



**This was used to build hospital resupply plans, support volunteer medical groups, and prioritize resources.**



***The Humanitarian OpenStreetMap Team (HOT) creates and provides free, up-to-date maps with the help of volunteer mappers during disasters around the world.***



[Download](#) | [OSM Tasking Manager](#)

[About](#) | [English](#) | [login to OpenStreetMap](#)

## #3633 - Hurricane Maria | 2017 - Puerto Rico 2 (Guajataca Dam Area)

[Description](#)
[Instructions](#)
[Contribute](#)
[Activity](#)
[Stats](#)

Puerto Rico was hit by Hurricane Maria (Category 5) on 20 September after hitting Dominica severely.

The American Red Cross has requested building data generation for planning and conducting relief operations on the island. The Guajataca Dam is in risk of collapse; the area underneath is being evacuated.

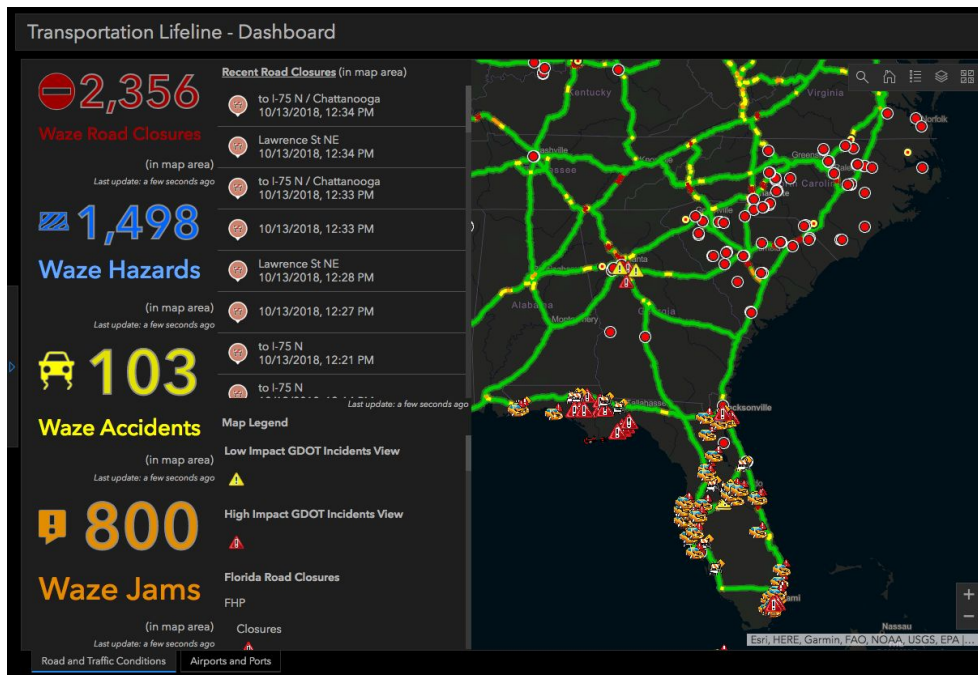
We are mapping from pre-event imagery to give them an operating picture of the island before the hurricane made impact.

Created by [rossdwyer](#) · Updated 2 hours ago · Priority High

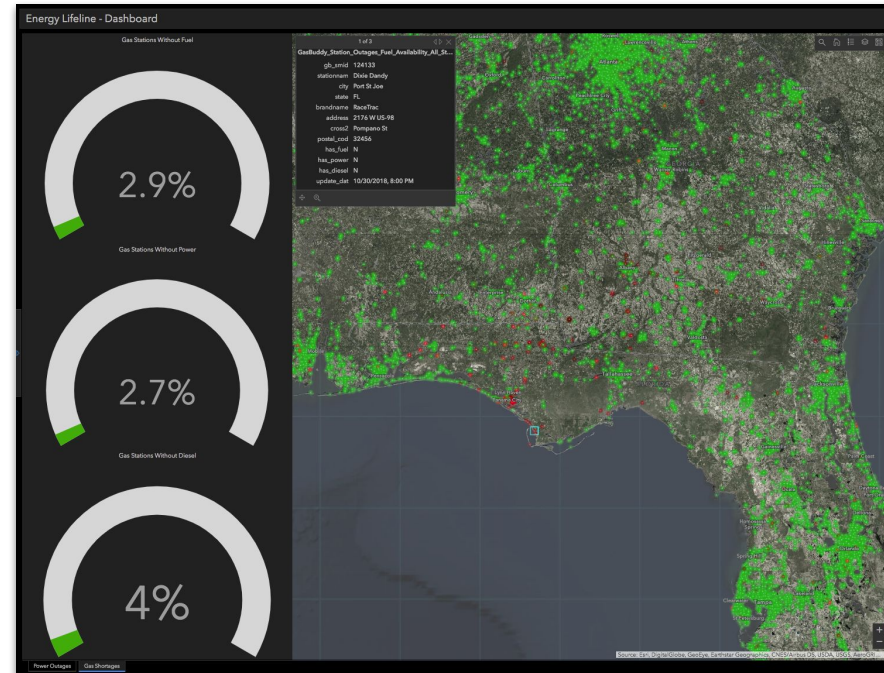
[Instructions](#)



# Crowdsourced Data from the Tech Sector



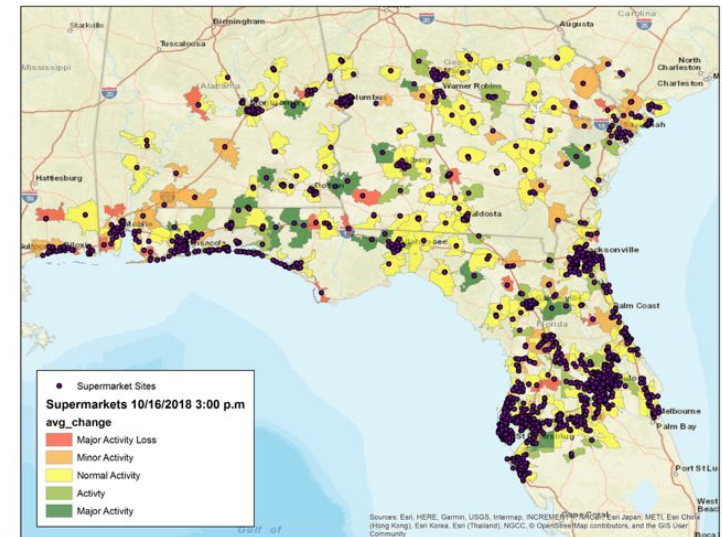
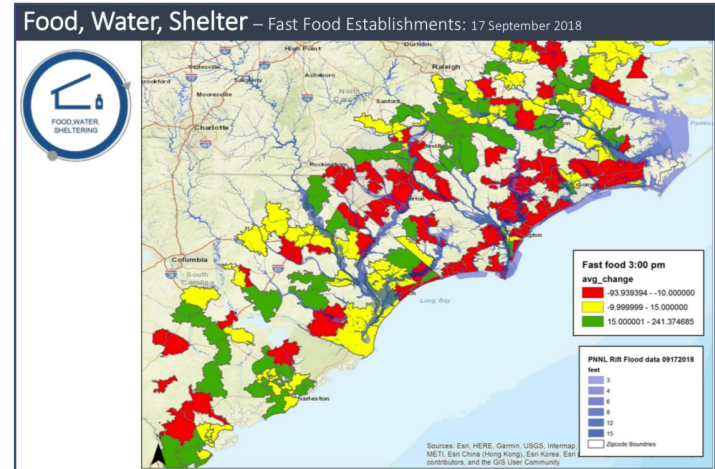
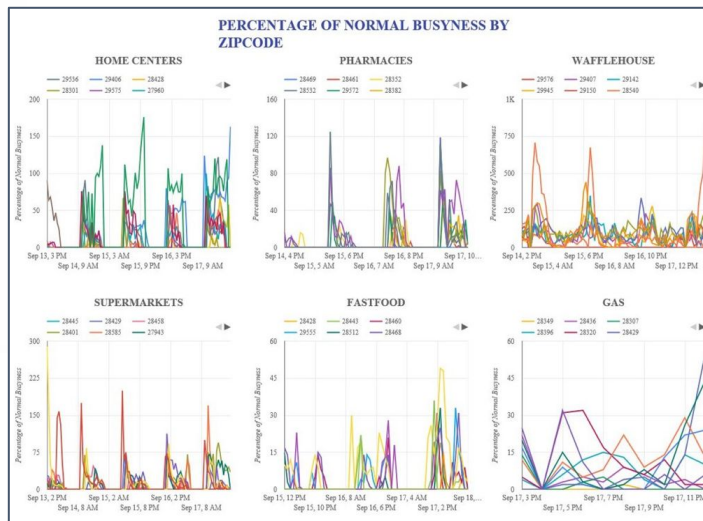
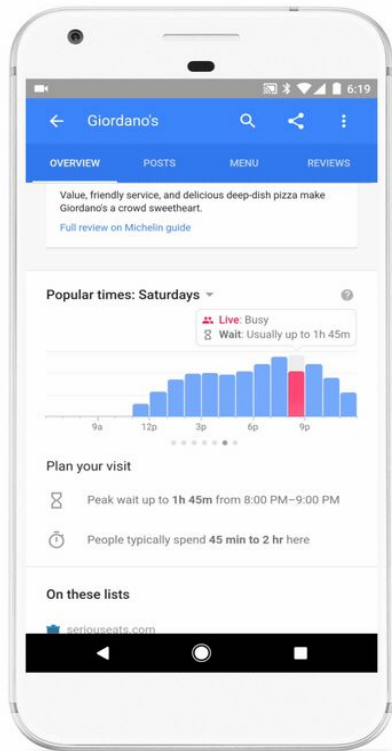
**USACE integrated Waze data  
into Trafficability Map**



**Department of Energy (DOE)  
integrates GasBuddy data into  
DOE Situation Reports**

# Google Busyness Data

Impact to commerce indicating businesses that are open or closed with long or no wait times.



# Crowdsourcing Unit Map Journal

<http://bit.ly/CrowdMichaelJournal>

**FEMA Crowdsourcing Unit - Hurricane Michael**

FEMA NRCC Crowdsourcing Unit

2018 Hurricanes Crowdsourced Photos

CrowdSource Rescue - Requests and Offers

NAPSG Joint SAR Activity

CEDR Shelters Crowdsourced

C4A MichaelResponse.org

C4A Points of Distribution (POD)

SBTF Medical Facility Status

GasBuddy Fuel Availability & Station Outages

Facebook Disaster Maps - Network Coverage

Waze Alerts - Traffic & Road Conditions

Crisis Cleanup - Recovery Work Orders

Public: 800-451-1954, Extended to Nov. 2. Flyers & Info: Download.

## Visualize the Disaster in Real Time

Personal information has been hidden, and the location has been blurred to 400 meters.

**Map** Satellite

Legend

- Muckout/Flood
- Tree/Wind
- Tarps/Roof
- Tornado
- Debris
- Mold Remed.
- Fire Damage
- Ash Sifting
- Landslide
- Deferred Maint.
- Other/Unknown
- Rejected

Work Order Claim/Status

- Unclaimed
- Claimed by Org.
- Unassigned
- Assigned / Followup
- Completed
- Out of Scope

**Case #: Z13506**

Name, Address, Phone Number are removed from the public map

Address: Carolina Avenue, Washington, North Carolina 27889

Work Type: Trees

Status: Open, unassigned

**SophiaLiu@usgs.gov**



**FEMA-Crowdsourcing@fema.dhs.gov**



**FEMA**

# Panel Discussion: Innovation and the Power of Public Engagement



**Jennifer Gustetic**

Program Executive for  
Small Business  
Innovation Research  
(SBIR/STTR)

NASA



**Caren Cooper, Ph.D.**

Associate Professor,  
Forestry and Environmental  
Resources and  
Chancellor's Faculty  
Excellence Program in  
Leadership and Public  
Science

N.C. State University



**Therese Griebel**

Deputy Associate  
Administrator for  
Programs, Space  
Technology Mission  
Directorate

NASA



**Alexis Bonnell**

Chief Innovation Officer  
USAID

# Crowdsourcing Digital Solutions Through Tech Partnerships: The Opportunity Project

**Drew Zachary**

Director of The Opportunity  
Project and Open  
Innovation Labs

U.S. Census Bureau



# The Opportunity Project

## Engaging industry and communities through collaborative design/build sprints

June 14, 2019

Drew Zachary, Co-Director, Census Open Innovation Labs  
U.S. Census Bureau | U.S. Department of Commerce

# The Opportunity Project

The Opportunity Project (TOP) facilitates collaboration between tech industry, government and communities, to generate data-driven digital products that benefit the public and drive the economy using federal open data.

[opportunity.census.gov](https://opportunity.census.gov)



# The Sprint Process

The Opportunity Project works through 12-week technology development sprints that bring technology developers, communities, and government together to solve problems using open data.

[Learn More](#)

## Tech Team

Tech Teams are the private sector companies, universities, non-profits, and even students who participate in sprints to build products that translate open data into valuable tools for people across the country. The tech teams design, own, and help to launch the products they build.

## Government

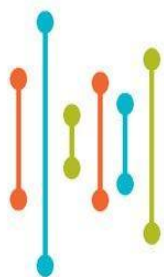
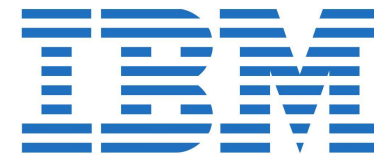
Federal government policy experts help to identify problems facing the public. Data stewards from federal agencies answer questions about open data to help the tech teams find and use the best data available to solve the problem. They also listen to feedback from sprint participants to make data more user-friendly.

## User Advocate

User Advocates are community leaders, advocates, and people with direct lived experience that can help the tech teams design products that are realistic, useful, and solve a problem for the target end users. For example, user advocates for a veterans problem statement might include service providers and veterans themselves.

## Product Specialist

Product Specialists from outside of government help the teams to ensure that the products they create continue after the sprints, so that they can reach their target end users and have real impact.



MEASURE OF AMERICA  
of the Social Science Research Council

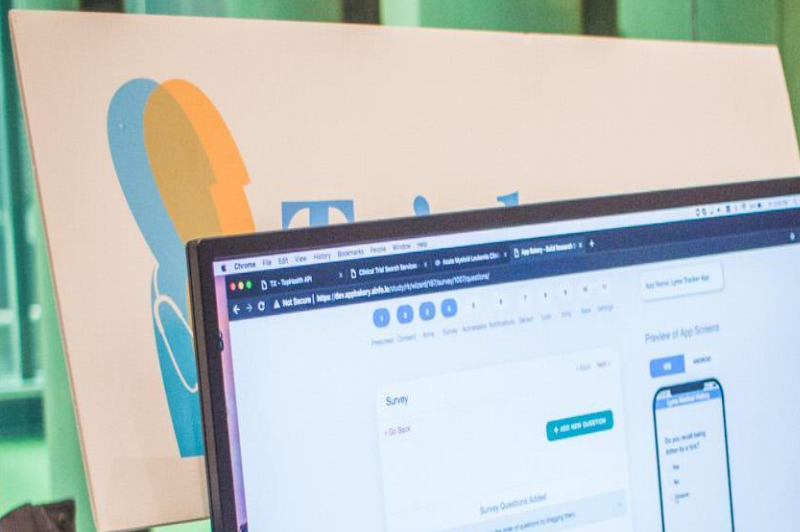


# How does the process work?

- Federal agencies identify high-priority problem statements
- COIL facilitates a 14-week tech development sprint
  - User research, data exploration, and design/build milestones
- Tech talent, end users, data stewards & policy experts collaborate virtually
- Tech teams drive design/development and own final products and associated IP
- Each team launches an MVP of a digital product at public demo day



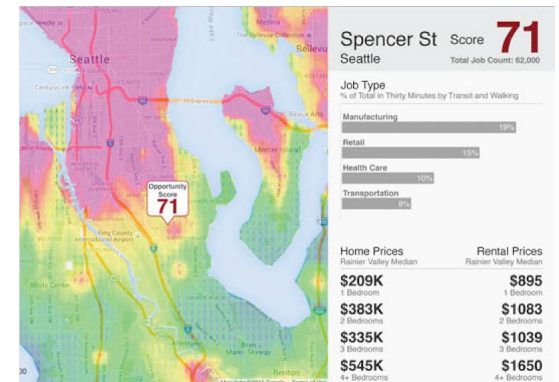
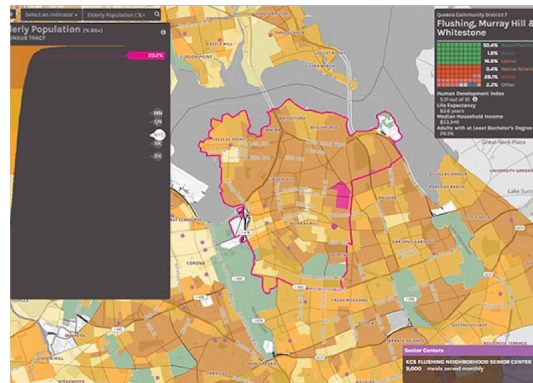
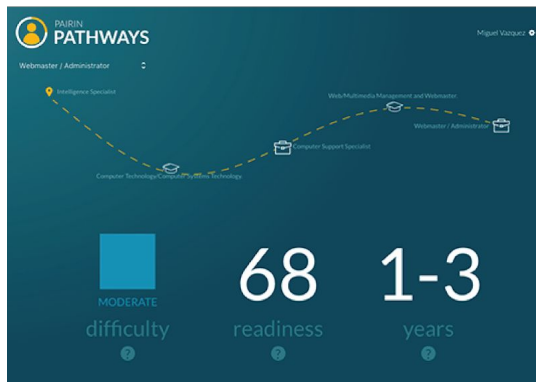
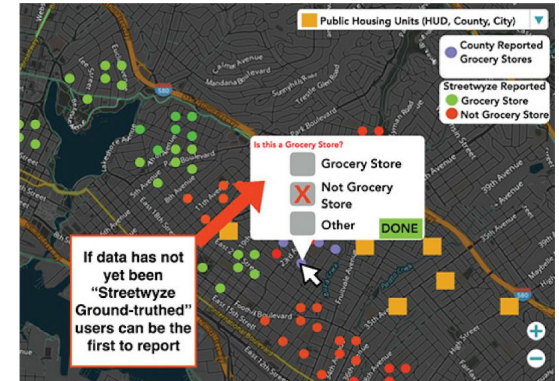
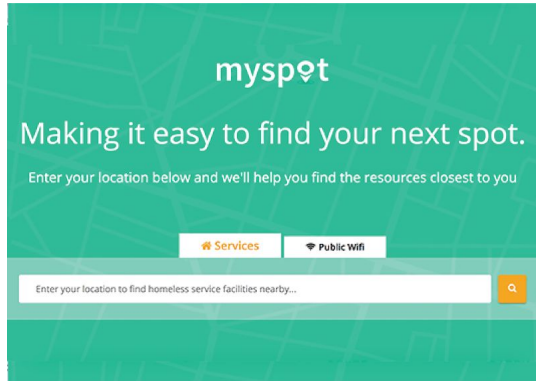
**San Juan, PR**



Trial X

Table 22

# 80 Products Created to Date



# The Opportunity Project Toolkit

## The Opportunity Project Toolkit

This toolkit documents the process that The Opportunity Project team at the Department of Commerce and other federal agencies have used to facilitate collaborative, user-centered technology development sprints. Anyone interested in transforming federal data into digital tools for the American people can adopt this process, adapt it for your own sprint, and share your feedback to help improve it.

Civic tech organizations, coding boot camps, and more have adopted The Opportunity Project process. We hope that teachers, community organizations, and state, local, and other government leaders will use it and share feedback to help improve it.

### RESOURCES



#### Data.gov

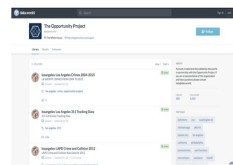
Search nearly 200,000 data sets from federal agencies. View the Opportunity Project collection of data sets at [data.gov/opportunity](https://data.gov/opportunity).



#### The Opportunity Project Slack

The Opportunity Project community on Slack is a great place to ask questions about finding, accessing, or using data sets.

### FORUMS, TUTORIALS, AND OTHER TOOLS



#### Data.world

Data.world created compilation of data sets for teams in The Opportunity Project with space to share feedback on data and collaborate with others



#### CitySDK

The U.S. Census Bureau created a series of tools that make it easier to combine and use government data. You can find The Opportunity Project module

Intro

01 Choose a Problem

02 Form a Team

03 Conduct User Research

04 Explore Data

05 Design and Build

06 Share the Product

07 Keep Improving

Intro

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### RESOURCES



#### Empathy Isn't Enough

Read this article written by a past participant in The Opportunity Project to learn more about the user research workshop, user interviews, and other methods they used to build a useful tool for youth experiencing homelessness.



#### User Centered Design Training

Watch this user-centered design training that Exigy created for Opportunity Project participants.



#### How to Conduct User Interviews

This article provides tips on how to create interview questions and conduct user interviews, and includes resources you can use for interviewing.



#### IDEO Design Methods

Consider using IDEO Design Methods to narrow down your problem statement.

Intro

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### STEP 05

## Design and Build a Product

Once you identify a problem to tackle, the end users your tool will serve, and the data you will use, you can start building! Work collaboratively to build a digital product, including many voices as possible in the design process and seeking feedback as you design and build. Build iteratively, showcasing early versions and revising your design plans based on feedback. Remember that you don't have to build the perfect or "final" solution in 12 weeks! During this phase, we recommend the whole group communicate frequently and come together remotely or in person every 2-3 weeks to demo their works in progress, ask questions, and share feedback.

- ☐ Build according to the user research. Use the data you found during data exploration.
- ☐ Share the concepts, wireframes, and prototypes early and often. Revise your design and plans based on the feedback you receive.
- ☐ Conduct user testing or feedback sessions to improve the product and

Intro

01 Choose a Problem

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05 Design and Build

06 Share the Product

07 Keep Improving

# Get Involved

# Workforce sprint

## Investing in the workforce in all communities

Virtual engagement: June 25 - Sep 27

- Modernizing talent discovery to grow the innovation economy (EDA)
- Resources to unleash American entrepreneurship (OSTP)
- Improving entrepreneurs and small businesses access to capital (SBA)
- Catalyzing investment in Opportunity Zones (CEA/HUD)
- Leveraging apprenticeships for career growth (COIL)

**JOIN US IN PERSON IN CHICAGO (July 2)**

[Topchicago.splashthat.com](https://topchicago.splashthat.com)

INVESTING IN  
THE AMERICAN  
WORKFORCE: A  
TECH &  
COMMUNITY  
WORKSHOP

07.02.2019



# 2020 Census Sprint

## Innovating the 2020 Census

*Virtual engagement: July 30 - October 31*

- Enumerator recruitment
- Real time response data
- Reaching hard to count populations
  - Children under 5
  - Rural and tribal communities
  - People experiencing homelessness
  - LGBTQ communities

***JOIN US IN PERSON IN DC - August (Date TBD)***



# The Opportunity Project Prize Challenge

A prize competition sponsored by the US Census Bureau to promote **sustainability of digital products created through TOP** and reward creative, effective **applications of federal open data**.

Awarding close to \$100,000 in prizes and in-kind awards in 2019.

# Why a prize?

# How to Participate

- 1) Create a product through The Opportunity Project
  - Join a facilitated sprint
  - Use online toolkit and join optional open sessions on user research & data exploration
- 2) Review rules posted on Challenge.gov in June
- 3) *Optional:* Send a notice that you plan to apply when prize opens
- 4) Submit your product and documentation by the deadline in October!
  - A live, working digital product that uses open data
  - Documentation of your sprint or toolkit participation (user research and open data)
  - Document your product's usage and impact to date or plans to deploy your product to end users
- 5) Submissions reviewed by a panel of data, technology, and policy experts from within and outside of government
- 6) Prize winners announced in December

# Prize Categories

## **Revolutionizing the Workforce**

*Ex: employment, education, developing regional talent pipelines*

## **Building Thriving Communities**

*Ex: affordable housing, transportation, public safety*

## **Resilient People and Places**

*Ex: disaster preparedness, environment stewardship, community*

## **Creating the Future of Health**

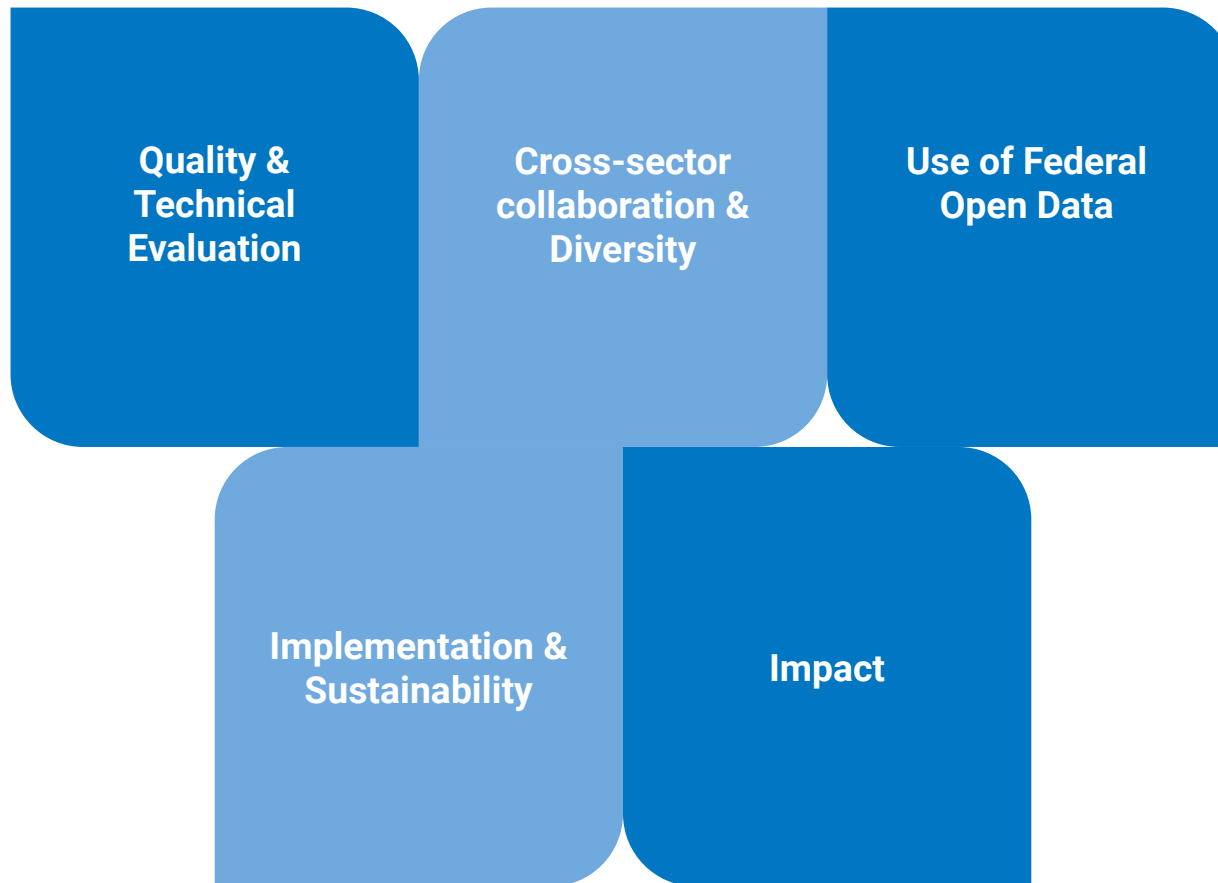
*Ex: preventing tick borne disease, responding to the opioid crisis*

## **Get Out the Count:**

## **Innovating for the 2020 Census**

*Ex: using technology to reach hard to count populations, bridging the digital divide*

# Evaluation Criteria



# Important Dates

Prize competition opens on  
challenge.gov &  
opportunity.census.gov

June

Submit optional "email of intent" to  
participate

June

Open Sessions (i.e. user research, data  
exploration)

July -  
October

Final submission deadline for prize

Late  
October

Submissions reviewed

November

Winners announced/prizes awarded

December

# Engage

- 1) Sign up for updates on [opportunity.census.gov](https://opportunity.census.gov)
- 2) Join our Slack  
[opportunity-slack.herokuapp.com](https://opportunity-slack.herokuapp.com)
- 3) Email us questions  
[census.opportunityproject@census.gov](mailto:census.opportunityproject@census.gov)
- 4) RSVP to Chicago workshop:  
**TOPchicago.splashthat.com**



**Thank you!**

**Drew Zachary**  
**drew.a.zachary@census.gov**

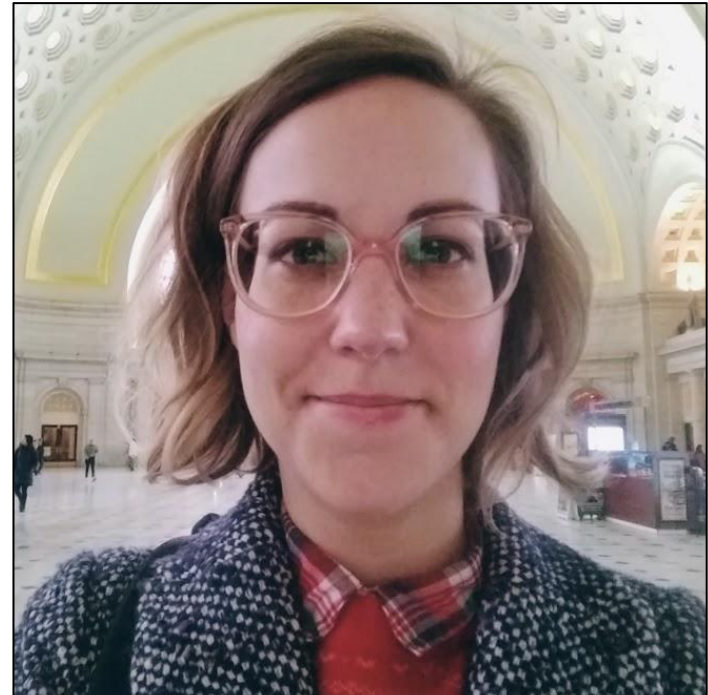
# Creating an Innovation Culture at the Library of Congress

**Lauren Algee**

Senior Innovation  
Specialist

Library of Congress

Library of Congress Labs (@LC\_Labs)  
By the People (@Crowd\_LOC)







Featherlite Pancakes  
all together  
1 C flour

2 T B. Powder

$\frac{1}{2}$  t salt

2 T sugar

mix

1 egg -  $\frac{1}{4}$  C milk

$\frac{1}{3}$  C peanut butter  
melted

1 T shorting or oil  
combine with dry ingredients

Cook at 275°

on griddle

Engage, inspire, and inform Congress  
and the American people with a  
universal and enduring source of  
knowledge and creativity

**All Americans are connected to  
the Library of Congress**

# labs.loc.gov



## Welcome to Labs!

A place to encourage innovation with Library of Congress digital collections.



### Experiments

Check out tools, art, applications, and visualizations we've made with our collections.



### LC for Robots

Find APIs, bulk downloads, and tutorials for the Library's digital collections.



### Events

See what's coming up, and read about past events.

# Library of Congress Digital Strategy



**We will throw open the treasure chest.**



**We will invest in our future.**

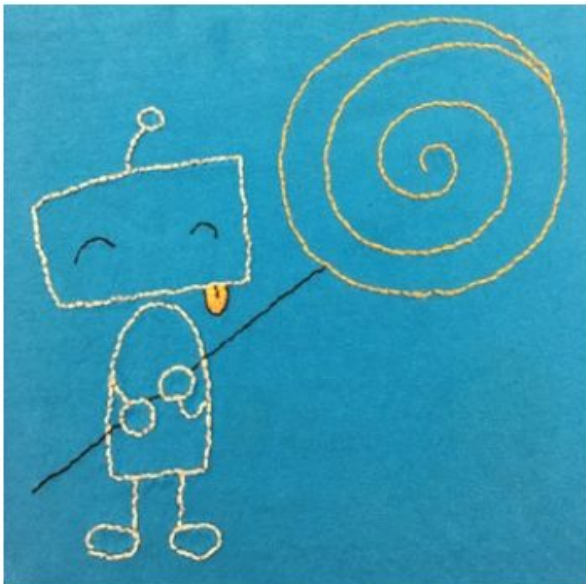


**We will connect.**

**[Loc.gov/Digital-Strategy](https://www.loc.gov/digital-strategy)**

# LC for Robots

We hope this list of APIs, bulk downloads, and tutorials will help you begin exploring the many ways the Library of Congress provides machine-readable access to its digital collections.



## Get Data

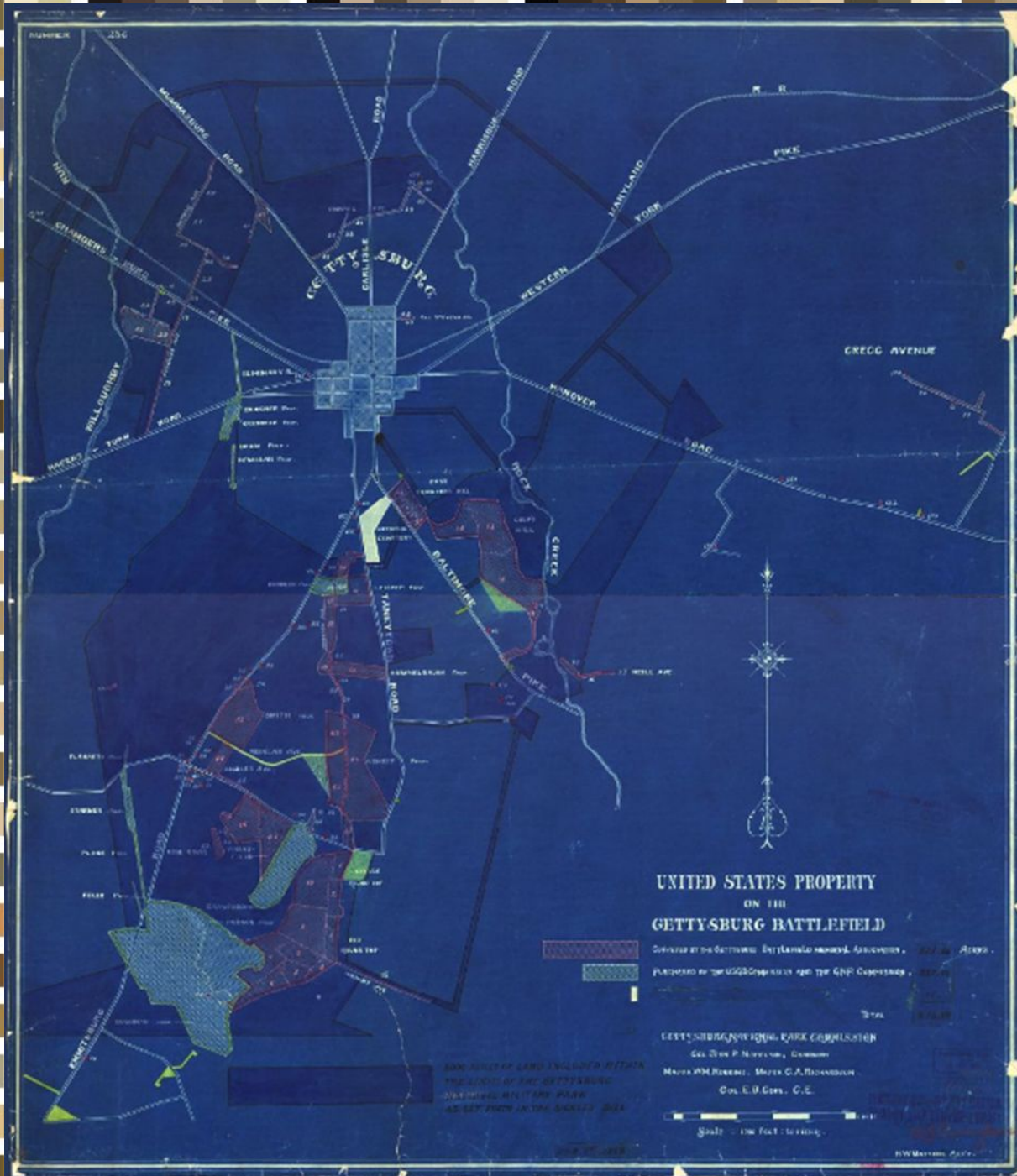
- Bulk data for [Congress.gov bills](#), [bill status](#), and [bill summaries](#)
- [MARC records](#) - bibliographic information for most of the Library's collections. 25 million records are available for exploration in UTF-8, MARC8, and XML formats.
- [Sample MARC data set and ReadMe file](#)
- [Chronicling America Bulk OCR Data](#) – text only
- [Chronicling America Bulk Data](#) – image, metadata, and OCR text batches

## APIs

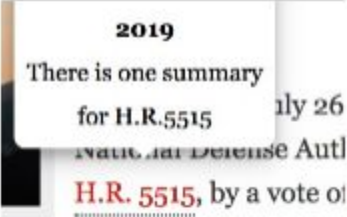











- [Loc.gov JSON API](#) [↗](#) - provides data about Library of Congress digital collections. The API is a work in progress and subject to change.
- [Chronicling America APIs](#) - over 12 million (and growing) digitized historic newspaper pages from almost every U.S. state and territory.



STAHL, BOSTON AMER.



# Labs.loc.gov/experiments

 <p>2019 There is one summary for H.R.5515 July 26 National Defense Auth H.R. 5515, by a vote of</p> <p>Congress.gov Browser Extension</p>	 <p>W.R.A. FEDERAL THEATRE PRESENTS MACHINE AGE A VARIETY THEATRE PRODUCTION</p> <p>Digital Scholarship</p>	 <p>Two Campaign Hustlers FROM TEAT BACK</p> <p>Political Cartoon Visualizer</p>
 <p>Free to Use Browser Extension</p>	 <p>LIBRARY OF CONGRESS Inside Baseball LAB SHOWCASE JULY 13</p> <p>Mapping an American Pastime</p>	 <p>The Evening Star</p> <p>Beyond Words</p>
 <p>Congressional Data Challenge</p>	 <p>ARTIST OF THE ARCHIVE</p> <p>Innovator-in-Residence Jer Thorp</p>	 <p>Library of Congress Colors</p>
 <p>Photo Roulette</p>	 <p>Southern Mosaic</p>	 <p>REVUE DE LA SOCIÉTÉ HAÏTIENNE D'HISTOIRE GÉOGRAPHIQUE</p> <p>RSHHGG Lab</p>

# Free to use browser extension



Suffragists in parade | 1910

# Congress.gov Browser Extension



U.S. Reps. Mac Thornberry (R-TX), Mike Turner (R-OH), and Tom Cole (R-OK) commended final U.S. House approval of the conference report resolving differences with the U.S. Senate on the fiscal year (FY) 2019 national defense funding package.

The House on July 26 passed the John S. McCain National Defense Authorization Act for FY 2019, [H.R. 5515](#), by a vote of 359 to 54. The measure now heads back to the Senate, which must approve it by

Sept. 30.

This year's reauthorization "takes a big step toward rebuilding and repairing... Thornberry, who introduced the bipartisan [H.R. 5515](#) on April 13 with U.S. chairman and ranking member, respectively, of the U.S. House Armed Ser... marks the fourth national defense reauthorization under Rep. Thornberry"

**2019**

There is one summary  
for H.R.5515

National Defense Autl

[H.R. 5515](#), by a vote of

# Congressional Data Challenge



## CONGRESSIONAL DATA CHALLENGE

Use Congressional data to create something that helps the public understand Congress and legislation in a new way. Things you could make:



Interactive  
visualizations



Website



Mobile or desktop  
applications



Other digital  
creation

FIRST PRIZE

**\$5,000**

BEST FROM HIGH SCHOOL

**\$1,000**

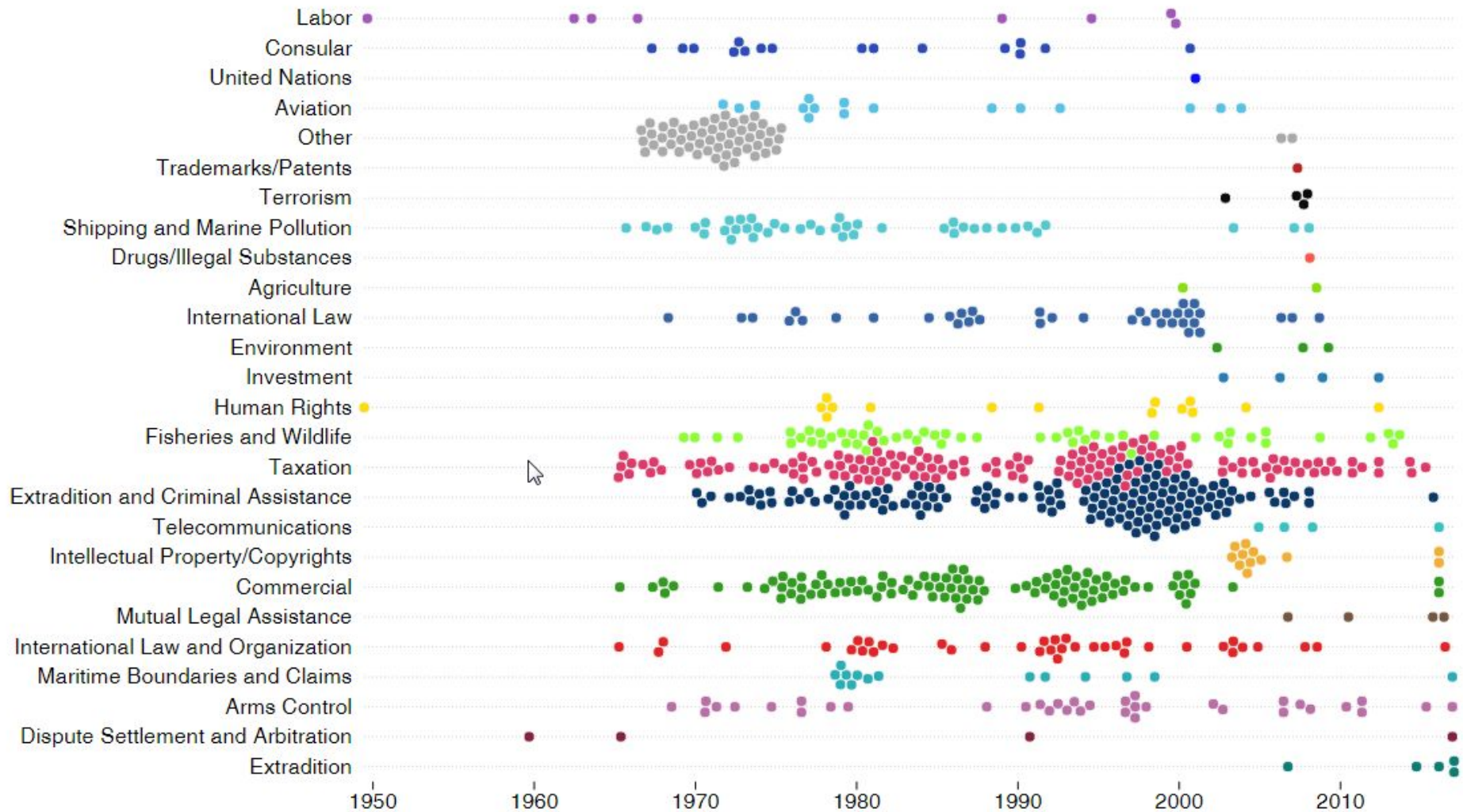
DEADLINE FOR ENTRIES

**APRIL 2, 2018**

MORE INFORMATION

[labs.loc.gov/experiments/congressionalchallenge](http://labs.loc.gov/experiments/congressionalchallenge)

# Treaty Explorer



# Innovator in Residence, Jer Thorp



Dear Reader,

Let's you and I walk through the endless stacks of the Library, collecting books. We'll pick out 265 of them published in or around 1650. Let's put them in one big pile, and then we'll close our eyes and choose twenty of them. Now let's write down the names of their authors:

Luigi, James, Johannes, Richard, Thomas, Hugo, Andrea, Charles, Nicholas, Pierre, Johann, Giovanni, Jean, another Johann, another Richard, William, another William, Alexandre, Edward, and Reginald.

Who are these people? Can you picture their faces? Do you know how they spoke, how they dressed, how they thought? You can change the year by clicking on it, and explore how these people change in the data (and in your mind) over time.

Sincerely,

Jer

Dear Reader,

Let's you and I walk through the endless stacks of the Library, collecting books. We'll pick out 210,179 of them published in or around 2000. Let's put them in one big pile, and then we'll close our eyes and choose twenty of them. Now let's write down the names of their authors:

Andrew, 'Alī, William, Manuel, Albert, Alberto, Wei, Mark, Philip, Carlo, Jens, Gaston, Ron, Anita, Laura, Patricia, Giovanni, Alexander, Thomas, and Jim.

Who are these people? Can you picture their faces? Do you know how they spoke, how they dressed, how they thought? You can change the year by clicking on it, and explore how these people change in the data (and in your mind) over time.

Sincerely,

Jer

$$\underline{6 + 8}$$

Americanus ex Virginia. Aetat 23

The **Forty** million.

39, single, and pregnant

alker, half-length portrait, dressed in jersey #38, holding football, facing front]

Kānmūrang Thai lang lūaktang Kō. Khō. 37 /

[Pictorial envelope for Hokusai's 36 views of Mount Fuji series]

Memories Reproductions' 35 mm. photography basic.

alterations to a school ("John Eaton School"), 34 Street and Lowell Place, N.W., Washington, D.C.

The 33 convicted members of the Duquesne spy ring

Trouble at number **thirty-two** ; Paddington and the Christmas shopping

Journée du Poilu. 31 octobre - 1er novembre 1915. Organisée par le pa

1 Newcomb à Monsieur Robert Kastor, Paris le 30 Mai 1903

ing center ("Seminole Trail Shopping"), Route 29, Charlottesville, Virginia

Mes 28 jours

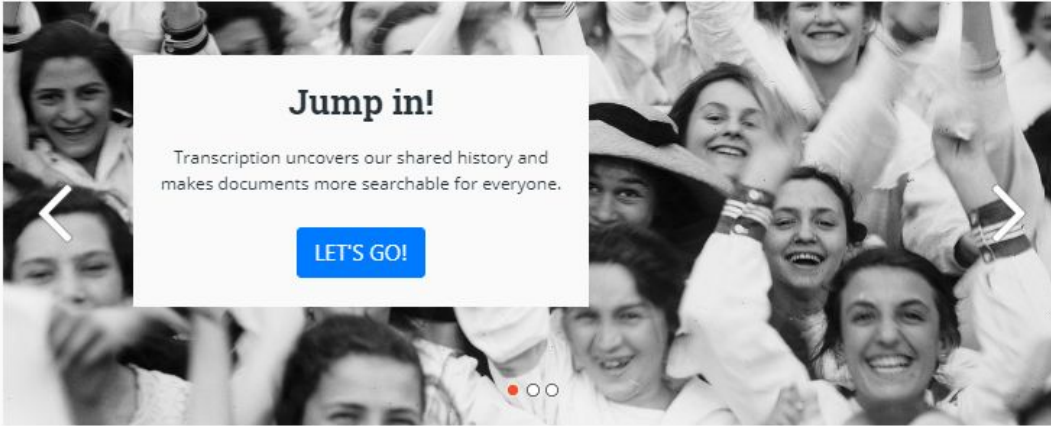


Featherlite Pancakes  
all together  
1 C flour  
2 T B. Powder  
 $\frac{1}{2}$  t salt  
2 T sugar  
mix  
1 egg -  $\frac{1}{4}$  C milk  
 $\frac{1}{3}$  C peanut butter  
1 T <sup>melted</sup> shorting or oil  
combine with dry ingredients  
Cook at 275°  
on griddle

# crowd.loc.gov

**LIBRARY** BY THE PEOPLE BETA  
LIBRARY OF CONGRESS

About Campaigns Resources Discuss Help Account ▾




**Jump in!**

Transcription uncovers our shared history and makes documents more searchable for everyone.

LET'S GO!


**Be a virtual volunteer!**

Anyone can contribute. Improve access to history by transcribing, reviewing, and tagging Library of Congress documents.




**TRANSCRIBE**

No account needed! Type what you see on the page.



**TAG**

Register to add keywords to help share what you find.



**REVIEW**

Review is the crucial final step! Register to edit and complete transcriptions.

# *By the People*

Transcription and tagging of digitized collections (mostly handwritten but some typed) to make them:

- Keyword searchable
- Readable by individuals and accessibility technologies
- Available for computational analysis

Open-source platform – **Concordia**

- [github.com/LibraryOfCongress/concordia](https://github.com/LibraryOfCongress/concordia)



## Library and Archives Canada

Canada

[Co-Lab Home](#)

[About Co-Lab](#)

[Challenges](#)

[Library and Archives Canada Home](#)

[Log in or register](#)

### Co-Lab

[Home](#) / [Challenges](#) / [View Challenge](#)

Co-Lab

Challenges

Transcription challenges

Translation challenges

Tagging challenges

Description challenges

Guidelines

[Start Tutorial](#)

## The Call to Duty: Canada's Nursing Sisters

The First World War saw a major mobilization of soldiers, equipment, supplies and medical staff. Between 1914 and 1918, 2,003 women enlisted with the Canadian Expeditionary Force (CEF) and went overseas. The war was perceived as exclusively male, but the presence of nursing sisters near the front and close to the line of fire has shattered this misperception and highlighted the importance of female caregivers during the war. These women looked after almost 540,000 soldiers and worked near the battlefields under difficult conditions.

Check out the letters, diaries and photographs of Canadian nursing sisters who served during the Great War. Follow these nurses as they witness the destruction of war, participate in social events, and help patients, as you transcribe, translate, tag and/or describe their writings and photographs.



### Alice Isaacson

**Type of Material:**

Photographs

**Language of material:**

English

Contains 1188 image(s)

Transcription

65% completed

## COLLECTION

### Abraham Lincoln Papers at the Library of Congress

About this Collection

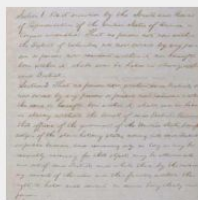
Collection Items

Articles and Essays

#### Featured Content



Abraham Lincoln, notes on the legitimate object of government, ...



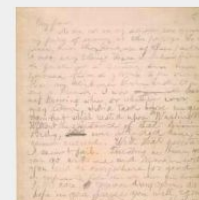
Abraham Lincoln, handwritten draft bill to abolish slavery in ...



Letter, Stephen A. Douglas to Abraham Lincoln, July 30, 1858, ...



Honorary membership certificate issued to Abraham Lincoln by the ...



Abraham Lincoln, farewell address, February 11, 1861, delivered ...

#### About this Collection

#### Related Resources

#### Rights and Access

#### Teaching Resources

Abraham Lincoln – Resource Guide

"I Do Solemnly Swear..." – Presidential Inaugurations

The Library of Congress Celebrates the

Listen to this page

## About this Collection

The papers of Abraham Lincoln (1809-1865), lawyer, representative from Illinois, and sixteenth president of the United States, contain approximately 40,550 documents dating from 1774 to 1948, although most of the collection spans from the 1850s through Lincoln's presidency (1861-1865). Roughly half of the collection, more than 20,000 documents, comprising 62,000 images, as well as transcriptions of approximately 10,000 documents, is online. Included on this website in their entirety are Series 1-3 of the Lincoln Papers and the original materials in Series 4. Excluded from this online presentation is a sizeable portion of Series 4, which consists of printed material and reproductions of government and military documents made from originals in the holdings of the National Archives and Records Administration.

## Image 4 of Abraham Lincoln papers: Series 4. Addenda, 1774-1948: Matthew Marsh to George M. Marsh, Sept. 17, 1835

[« About this Item](#)

Image 4 of 4 [Go](#) Pages [«](#) [»](#) [Hide Text](#) [View](#) [Single image](#) [Go](#)

on the night of the 17 August a tornado passed over this place, laid the fences flat, rooted up trees blew down corn & done other damage. The next morn by daylight as I was putting up my fence 2 great wolves walked along unconcerned within 30 yds of me - I tried to scare them by taking off my hat & running towards them but they would not quicken their gait - there are the only ones I have seen - High winds seem to be common every where this year, so the papers say - There has been a flock of wild turkies around my house since I cut my oats and as I had not shot at them but twice. They were pretty tame. Seeing them last week I took out my gun which had a great charge in/that I intended to shoot a Bull with who had badly hooked Clarks horse / and as their heads all go up together when they see any one. I let drive & shot fine. but could not catch but 3. had I a dog or another person with me I would have [snared?] all - Prairie hens are very plenty this fall - they are all the color of a "gray duck" & their feathers lay closer to them than to barnyard fowls. with a trap a person could catch as many as they could eat during the winter. Partridges are too small game to shoot at - If you were only here we could live like Princes. I do not know exactly where I shall go yet - but if no better chan[ce] offer[ed]

Transcribed and reviewed by volunteers participating in the *By The People* project at [crowd.loc.gov](http://crowd.loc.gov).



**⚠ Another user is transcribing this page**  
**Transcribe this page.**

Go ahead, start typing. You got this!

☐ Nothing to transcribe ?

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**Tags**

Want to tag this page? [Register](#) or [login](#) to add tags.

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## CAMPAIGNS: CHOOSE WHAT TO TRANSCRIBE



Branch Rickey: Changing the Game



Civil War Soldiers: "Disabled but not disheartened"



Clara Barton: "Angel of the Battlefield"

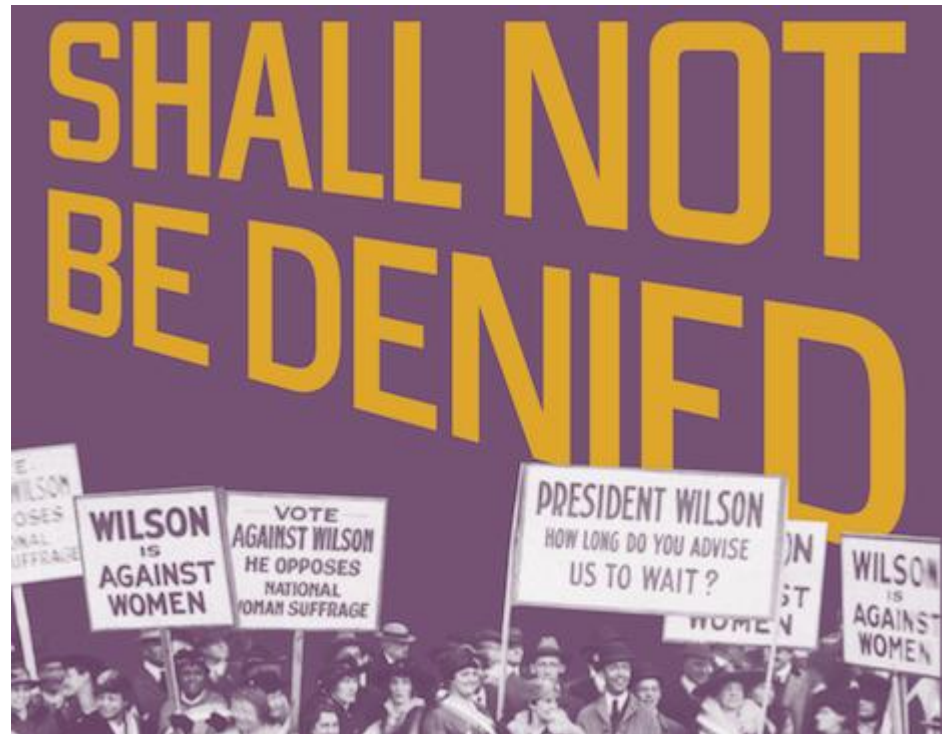
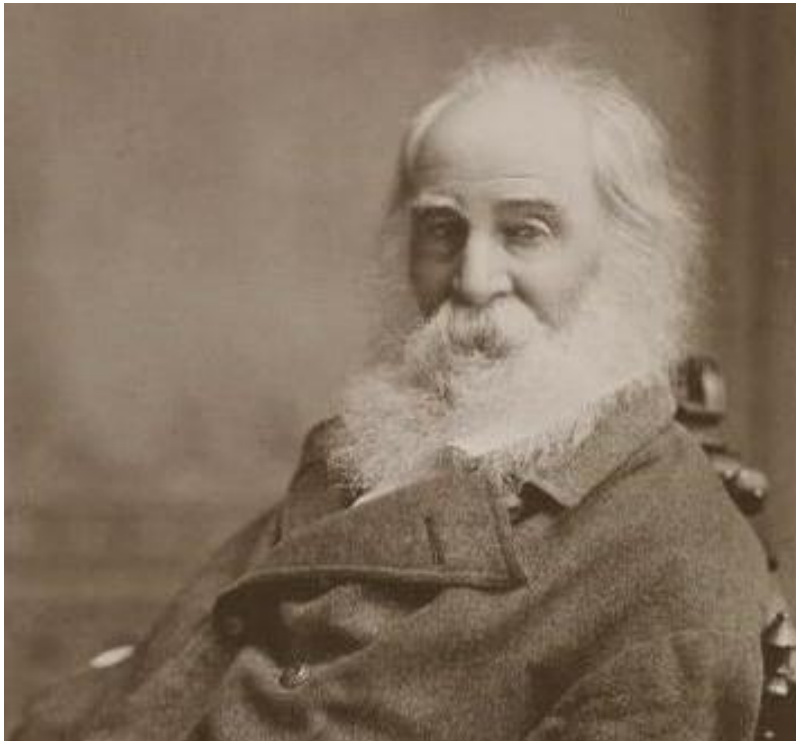


Letters to Lincoln



Mary Church Terrell: Advocate for African Americans and Women

# Whitman, suffrage, & more



# In the classroom

6th graders loved transcribing for the [@librarycongress](#) through [@Crowd\\_LOC](#) - really brought primary sources to life, and they thought it was so cool to actually get to preserve the nation's history.



**Mrs. Flaherty** @RooseveltLib Mar 20  
The Black Experience class with [@ms\\_nmb](#) is transcribing some primary sources of Mary Church Terrell for the [@Crowd\\_LOC](#) to celebrate Women's History and make learning history accessible for all! [#KentRiderPride](#)



**LOC Crowdsourcing** @Crowd\_LOC · 17 Dec 2018

A [@Georgetown](#) Lincoln History class shares [#LettersToLincoln](#) insights, including complexities of 19th c. politicking and trash talk. Which Lincoln rival was alternately described as "weak", "lame" and full of "chicanery"? [go.usa.gov/xEcyC](#)

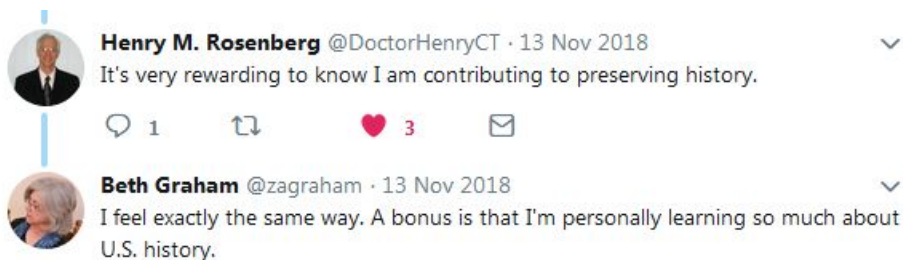


# ***By the People* by the numbers**

In 8 months:

- ✓ 4,600 registered users
- ✓ 15,000 actions by anonymous users
- ✓ 35,000 pages transcribed and awaiting review
- ✓ 16,000 pages complete
- ✓ 5,000 transcriptions published on loc.gov

# Engaging & forging connection



**Kristina Killgrove** @DrKillgrove  
My 9yo is ridiculously excited to help the @librarycongress transcribe records from the Civil War. She's learning about the "Left Handed Penmanship" contest for veterans who lost use of their right hands.

Check it out at [crowd.loc.gov/](https://crowd.loc.gov/)



Show this thread

1 1 13 ...

**Kristina Killgrove** @DrKillgrove  
Replying to @Crowd\_LOC  
I've also been doing the Lefthanded Penmanship Contest transcriptions, since I'm both left-handed and interested in disease and disability in the past. Your project is great, and now I'm going to see what other citizen-STEAM projects I can get my girls involved in.

WHAT DOES IT MEAN

To assemble

THE whole?



# Thank you!

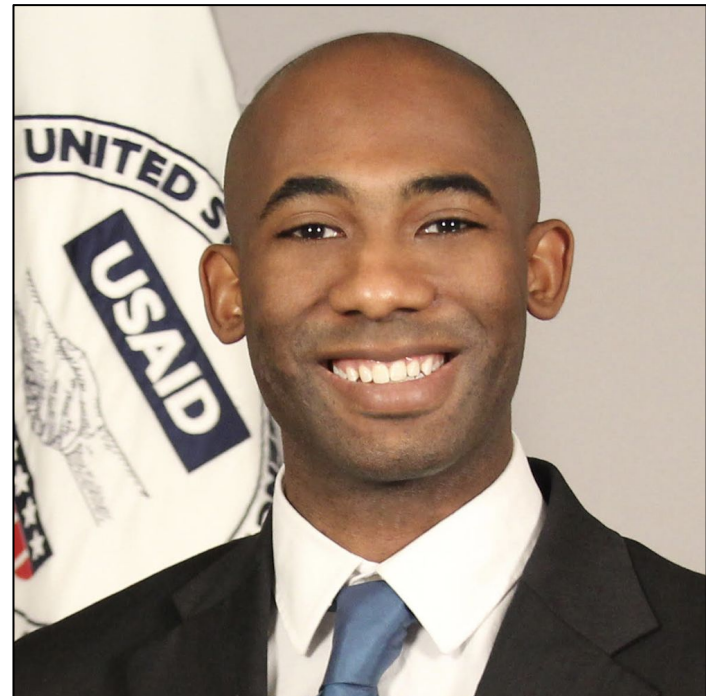
Even more at  
[crowd.loc.gov](http://crowd.loc.gov)  
&  
[labs.loc.gov](http://labs.loc.gov)

# **Accelerating Innovation: Securing Water for Food Grand Challenge Model**

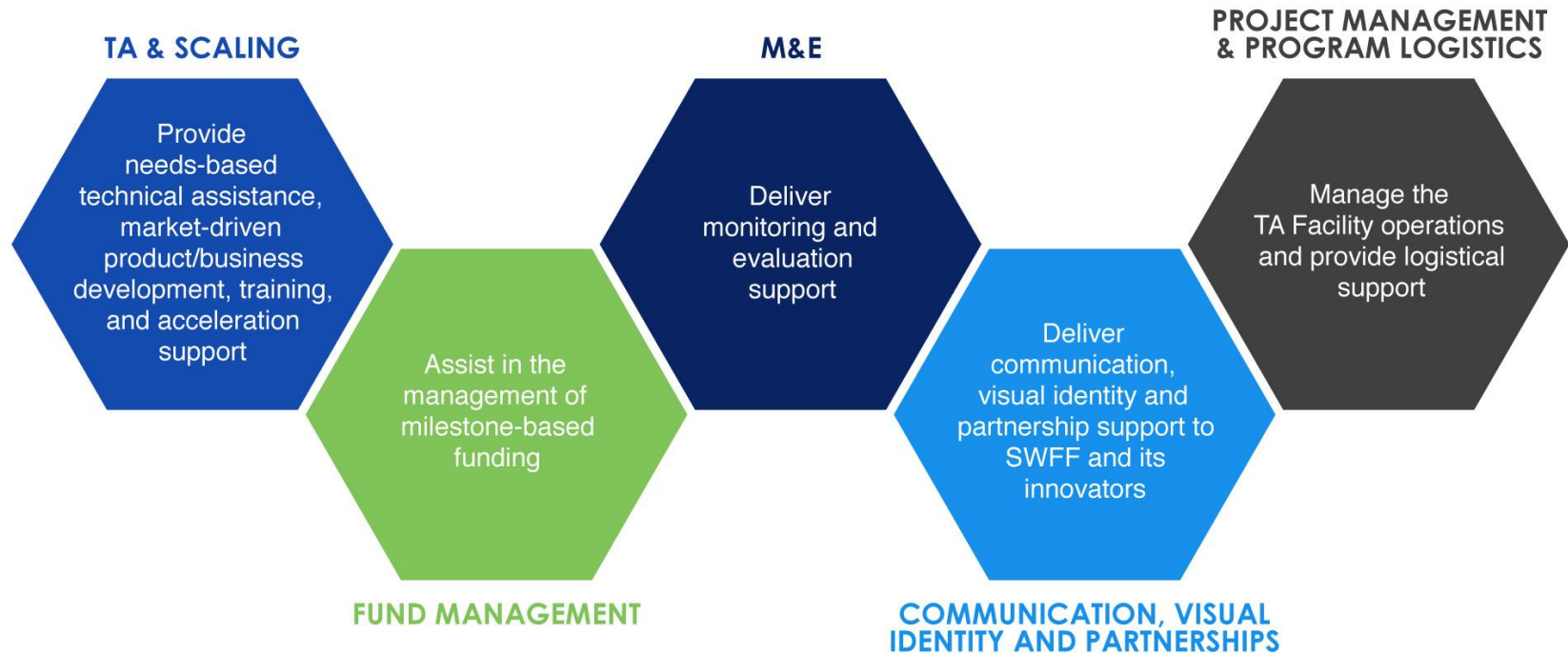
## **Ku McMahon, Ph.D.**

Team Lead, Securing Water  
for Food, Center for  
Development Innovation

U.S. Global Development  
Lab, USAID



# Technical Assistance Facility **Portfolios and Objectives**



# Lesson Learned 1:

## Milestone-Based Funding + Acceleration Support



## **Lesson Learned 2:** **Capacity Building on Grants Management**



## Lesson Learned 3: Multi-Stakeholder Collaboration + Flexibility to Pivot



## **Lesson Learned 4:** **Creating a Viable Financial Model & Marketing Strategy**



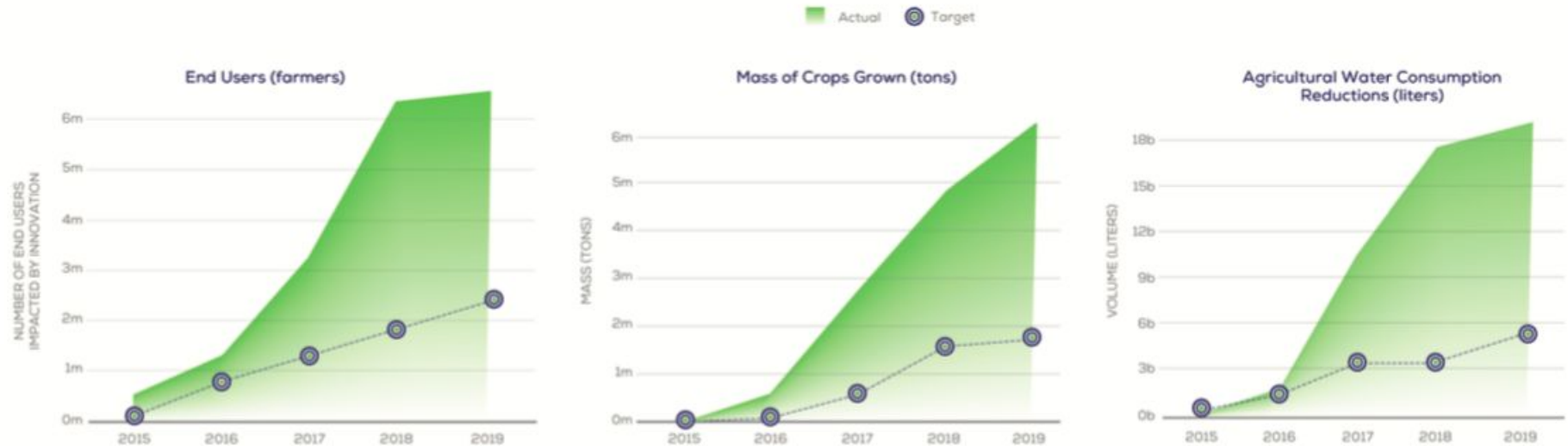
# Before & After SWFF

	Before SWFF(<2017)	After SWFF (>2017)
Stage of growth	Start Up	Scale up
Management Tools	None	Sales & Marketing Strategy, Business Model & Financial Policies.
Management Structure	6 Employees	36 employees(Management &Board)
Number of Products	2 (Nutrients & Fodder)	6 (food crops,
Partners	1 (KCIC)	5 (KCV, Aqua for All, Via Water, Africa Funded & Climate Circle)
Branches	1 (Kenya)	3 (Rwanda,Burkina & Nepal)
Market Niche	1 (Kenya)	4(Kenya,TZ,Rwanda,UG & Somalia)
Number of Installations, water saved,yield and Hectrares	3000. Water<150M, Yield<1Tonn, Hectares<1	6,000 Water 110M, Yield 2,500 tonnes, Hectares 3.5
Sales Increase	<250,000	>350,000 (40% Increase)
Profit Margin	8%	30%

## **Lesson Learned 5:** **Incorporating Design & Marketing Feedback from Women**



# Program Targets and Actual Impact



# THANK YOU

Dr. Ku McMahan  
lmcmahan@usaid.gov

---

[www.securingwaterforfood.org](http://www.securingwaterforfood.org)

SECURING  
WATER  
FOR FOOD:  
A GRAND CHALLENGE  
FOR DEVELOPMENT

# Questions?

Dr. Ku McMahan

lmcmahan@usaid.gov

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[www.securingwaterforfood.org](http://www.securingwaterforfood.org)

SECURING  
WATER  
FOR FOOD:  
A GRAND CHALLENGE  
FOR DEVELOPMENT



SECURING  
WATER  
FOR FOOD:  
A GRAND CHALLENGE  
FOR DEVELOPMENT

# Closing Remarks

## Jarah Meador, Ph.D.

Director of Challenge.gov  
and CitizenScience.gov

Office of Products and  
Programs, General Services  
Administration



# THANK YOU!!



# U.S. Government Open Innovation Summit

June 14, 2019